

Estudio para análisis de falla EAF 192/2023

"Falla en línea 66 kV Aihuapi - Los Negros"

Fecha de Emisión: 22-05-2023

1. Descripción general de la interrupción

a. Fecha y Hora de la falla

Fecha	29/04/2023
Hora	01:35
Consumos desconectados (MW)	1.97
Demanda previa del sistema (MW)	8844.2
Porcentaje de desconexión	0.022 %
Calificación Apagón	No aplica (porcentaje de desconexión < 10%)

b. Identificación instalación afectada

Nombre de la instalación	Línea 66 kV Aihuapi - Los Negros / LT033CI1TR01----G005
Tipo de instalación	Línea
Tensión nominal	66 kV
Segmento	Transmisión zonal
Propietario instalación fallada	Empresa Eléctrica Capullo S.A.
RUT	96.637.520-5
Representante Legal	Pablo Benario
Dirección	Justo Geisse 851, Osorno.

c. Identificación del elemento fallado

Nombre del elemento afectado	Línea 66 kV Aihuapi - Los Negros / LT033CI1TR01----G005
Propietario elemento fallado	Empresa Eléctrica Capullo S.A.
RUT	96.637.520-5
Representante Legal	Pablo Benario
Dirección	Justo Geisse 851, Osorno.

d.1 Origen y causa de la falla

Se produjo la desconexión forzada de la línea 66 kV Aihuapi - Los Negros, debido a un cortocircuito monofásico en la estructura N°241.

La Empresa Eléctrica Capullo S.A. señala que la causa de la falla corresponde a un choque de un vehículo particular contra la estructura N°241 de la mencionada línea, producto de este impacto, se origina un daño irreparable en la estructura, sin embargo, no hubo daño en el conductor.

d.2 Fenómeno Físico:

ACC3: Vehículos terrestres.

La Empresa Eléctrica Capullo S.A. remite antecedentes que acrediten la causa de la falla.

d.3 Reiteración:

Reiteración Fenómeno Físico en la instalación afectada: Esta instalación no ha sido afectada por el mismo fenómeno físico, durante los últimos 24 meses móviles.

Reiteración Fenómeno Físico en instalaciones del mismo propietario: No se ha producido la reiteración del fenómeno físico en otras instalaciones del propietario de la instalación afectada, durante los últimos 24 meses móviles.

Cantidad de fallas (sin importar Fenómeno Físico) en la misma instalación: No se han producido fallas en la misma instalación afectada, durante los últimos 24 meses móviles.

d.4 Fenómeno eléctrico

PR51N: Protección de sobrecorriente temporizada residual.

e. Detalles de la instalación, equipo o elemento donde se produjo la falla

La falla se originó en la línea 66 kV Aihuapi - Los Negros, cuya longitud es de 30.04 km y posee un conductor del tipo AAAC Alliance por fase de acuerdo con la información técnica disponible en la plataforma Infotécnica del Coordinador.

La Empresa Eléctrica Capullo S.A. no remitió antecedentes respecto de los mantenimientos realizados a este elemento durante los últimos 24 meses.

f. Ubicación urbana o rural según DS 327/1997

No fue informado por las empresas Luz Osorno S.A. y SAESA S.A.

g. Proposición del propietario respecto del origen de la falla

La Empresa Eléctrica Capullo S.A. indica: "*Fuerza Mayor*"

h. Comuna donde se presenta la falla

10301: Osorno

i. Fecha de entrega de la información al Coordinador

Coordinado	Informe de 48 horas (01-05-2023)	Informe de 5 días (08-05-2023)
Empresa Eléctrica Capullo S.A.	29-04-2023	09-05-2023
Compañía Eléctrica de Osorno S.A (Luz Osorno S.A.)	No enviado	No enviado
Sociedad Austral de Electricidad S.A. (SAESA S.A.)	No enviado	No enviado

2. Descripción del equipamiento afectado

a. Sistema de Generación

b. Sistema de Transmisión

Elemento Afectado	Segmento	Tramo	Hora Desc.	Hora Norm.
Línea 66 kV Aihuapi - Los Negros	ST Zonal	Aihuapi - Los Negros	01:35	03:54 (30-04-2023)
S/E Los Negros	ST Zonal	Barra 23 kV	01:35	07:57 (30-04-2023)

c. Consumos

Sub-Estación	Alimentador / Paño	Comuna	Pérdida de Consumo (MW)	% consumo pre-falla	Clientes Afectados	H. Desc.	H. Dispon.	H. Norm.
S/E Los Negros	Los Negros / E1	Osorno y Puyehue	0.49	0.006	570	01:35	07:57 (30-04-2023)	01:42
S/E Los Negros	Los Negros - Saesa / E2	Osorno y Puyehue	1.48	0.017	924	01:35	07:57 (30-04-2023)	01:42

Total: 1.97 MW 0.022 % 1494

- Los montos y horarios señalados corresponden a lo informado por la Empresa Eléctrica Capullo S.A.

3. Estimación de la energía no suministrada

Sub-Estación	Alimentador / Paño	Empresa	Tipo de Cliente	Pérdida de Consumo (MW)	Tiempo Indispon. (h)	Tiempo Desc. (h)	ENS (MWh)
S/E Los Negros	Los Negros / E1	LUZ OSORNO	Regulado	0.49	30.37	0.12	0.06
S/E Los Negros	Los Negros - Saesa / E2	SAESA	Regulado	1.48	30.37	0.12	0.17

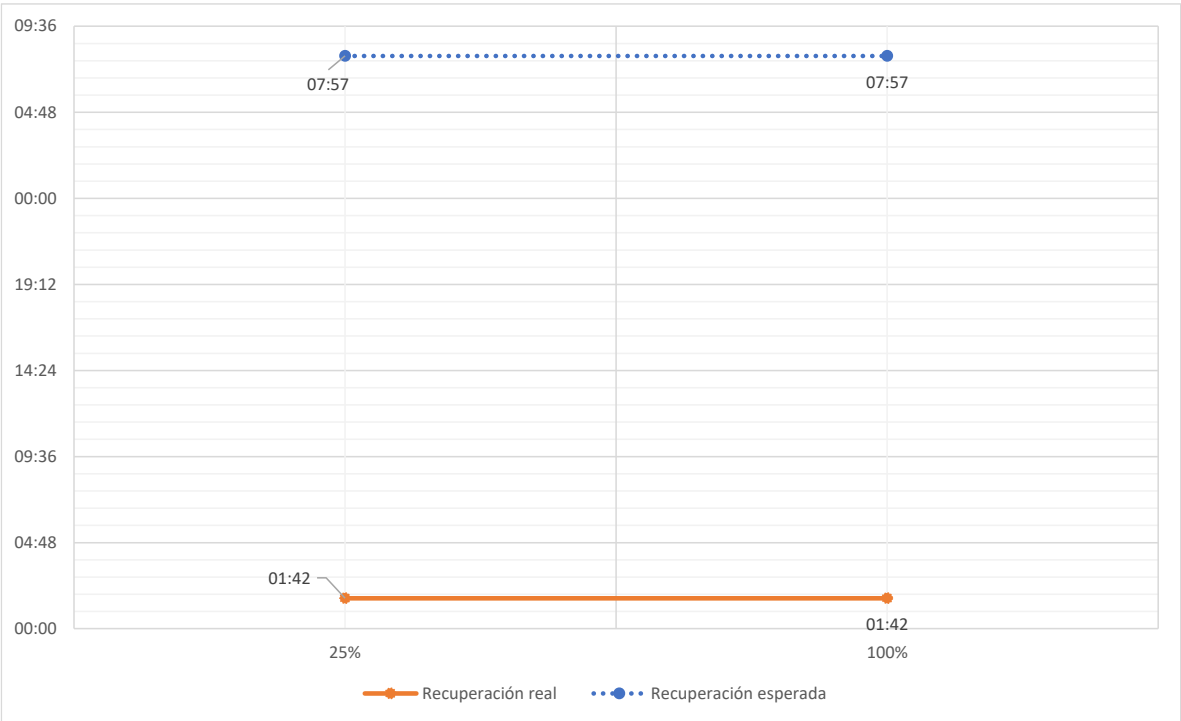
Clientes Regulados : 0.23 MWh

Clientes Libres : 0 MWh

Total : 0.23 MWh

- Los montos señalados corresponden a lo informado por la Empresa Eléctrica Capullo S.A.

- Curva de recuperación esperada v/s recuperación real.



Se aprecian diferencias entre los horarios de recuperación real respecto de los horarios de disponibilidad de las barras primarias respectivas para recuperar consumos, debido a que la recuperación de estos se realizó mediante maniobras en media tensión, en un horario previo a la reparación de la línea 66 kV Aihuapi - Los Negros.

- Velocidad promedio de recuperación.

Rango	Potencia (MW)	Tiempo recuperación (h)	Velocidad de recuperación (MW/h)
Primer 80 %	1.58	0.12	13.51
Último 20 %	0.39	0.12	3.38
100 % Total	1.97	0.12	16.89

4. Descripción de las configuraciones en los momentos previo y posterior a la falla

Demanda del sistema previo a la falla: 8844.2 MW

Regulación de Frecuencia

Control distribuido de frecuencia en el Sistema Eléctrico Nacional, previo a la falla, mediante las centrales Andina (CTA), Angostura (U3), Atacama 1 (TG1B), El Toro (U1, U2, U3 y U4), Hornitos (CTH), Kelar (TG12), Norgener (NTO1), Quintero (U1 y U2) y Tocopilla (U16).

Estado y configuración previo a la falla

Las instalaciones de transmisión se encontraban en servicio normal en los momentos previos a la desconexión forzada.

Otros antecedentes relevantes

Según lo informado por la Empresa Eléctrica Capullo S.A.:

"El pasado sábado 29 de abril alrededor de las 01:39 horas, se notifica de una interrupción del sistema eléctrico en línea de 66 kV Aihuapi – Los Negros, en Subestación Aihuapi abre 52B2 por actuación de protecciones. Dicho evento deja fuera de servicio a Subestación Los Negros y afecta a 1494 clientes de las comunas de Osorno y Puyehue. A las 01:42 se recuperan el 100% de los clientes por red de distribución. De acuerdo con los datos obtenidos de las protecciones, se identifica el punto de falla a 15,6 km desde SE Aihuapi. Personal de mantenimiento en turno sale de forma inmediata para buscar causa de interrupción. A eso de las 03:14 personal de mantenimiento que se encontraba realizando recorrido pedestre, reporta causa de falla encontrando el punto de ocurrencia en la estructura 241 (coincidente con los datos de las protecciones de distancia), donde se encuentran postes de concreto tipo portal (Q5) colapsado producto del choque de camioneta contra sus bases a orillas de la ruta internacional 215. Producto del colapso de la estructura en la ruta, esta queda bloqueada para el tránsito en el lugar. Personal técnico evalúa y gestiona recursos para despejar la vía de forma segura, lográndose abrir el tránsito a eso de las 08:00 hrs, posterior al despeje de la vía se procede a comenzar con los trabajos de retiro de camioneta, postes dañados y con el reemplazo de estructura. La normalización de las estructuras y de la topología de la línea 66 kV Aihuapi – Los Negros, concluyen a las 03:54 hrs de la madrugada del domingo 30 de abril con la energización de línea en vacío."

De forma complementaria, se adjunta el informe de falla de la instalación ingresado en el sistema del Coordinador Eléctrico Nacional por Empresa Eléctrica Capullo S.A. (Anexo N°1) y otros antecedentes aportados por dicha empresa (Anexo N°2).

Se solicitará a la Empresa Eléctrica Capullo S.A. lo siguiente:

- Mantenimientos realizados a la instalación involucrada por este evento (línea 66 kV Aihuapi - Los Negros) durante los últimos 24 meses, junto con los antecedentes que los acrediten.
- Antecedentes probatorios requeridos para el Fenómeno Físico asociado al evento en cuestión (ACC3: Vehículos terrestres), según Resolución Exenta SEC N°30989-2019, en particular, lo siguiente:
 - Envío de la fotografía del parte policial.

Se solicitará a la empresa Luz Osorno S.A. lo siguiente:

- Envío de los Informes de Falla de 48 horas y 5 días que establece la NTSyCS, en los cuales al menos se detalle los siguientes puntos:
 - Detalle pormenorizado de los consumos afectados por cada alimentador de su representada en S/E Los Negros, junto con las maniobras realizadas tanto para la recuperación de los consumos como para la normalización de las instalaciones.
 - En relación con el punto anterior, se solicita aclarar si los consumos declarados para los alimentadores involucrados de su representada durante el evento en cuestión consideran la inyección de PMGD conectados en la red de distribución, identificando, para cada caso, el nombre del alimentador y del PMGD respectivo.
 - Comunas, número de clientes afectados por la interrupción de suministro y calificación urbana o rural en cada alimentador de su representada en S/E Los Negros, de acuerdo con lo indicado en Decreto 327, 1997 del Ministerio de Minería, Título IX, Artículo 25, o en su defecto su clasificación de densidad.

- Envío de los Informes de Falla de 48 horas y 5 días que establece la NTSyCS, en los cuales al menos se detalle los siguientes puntos:
 - Detalle pormenorizado de los consumos afectados por cada alimentador de su representada en S/E Los Negros, junto con las maniobras realizadas tanto para la recuperación de los consumos como para la normalización de las instalaciones.
 - En relación con el punto anterior, se solicita aclarar si los consumos declarados para los alimentadores involucrados de su representada durante el evento en cuestión consideran la inyección de PMGD conectados en la red de distribución, identificando, para cada caso, el nombre del alimentador y del PMGD respectivo.
 - Comunas, número de clientes afectados por la interrupción de suministro y calificación urbana o rural en cada alimentador de su representada en S/E Los Negros, de acuerdo con lo indicado en Decreto 327, 1997 del Ministerio de Minería, Título IX, Artículo 25, o en su defecto su clasificación de densidad.

a) La instalación afectada no cuenta con una auditoría, plan de acción u otro tipo de mantenimiento en curso.

La Empresa Eléctrica Capullo S.A. señal: "Sistema de Transmisión de Sur S.A. reparó la línea 66 kV Aihuapi – Los Negros el día 29-04-23. Para mayor detalle ver anexo N°1 "Informe Mantenimiento Reparación" (Ver Anexo 2).

No se indican acciones correctivas de largo plazo.

Simbología	
	Barra/Línea sin energía
	Barra/Línea 23 kV
	Barra/Línea 66 kV
	Barra/Línea 110 kV
	Barra/Línea 220 kV
	Interruptor cerrado
	Interruptor abierto
	Interruptor operado
	Interruptor cerrado sin tensión
	Transformador
	Nodo de conexión

5. Cronología de eventos y la descripción de las causas de los eventos

Hora	Involucrado	Evento
01:35	Empresa Eléctrica Capullo S.A.	Apertura automática del interruptor 52B2 de S/E Aihuapi, asociado a la línea 66 kV Aihuapi - Los Negros, por operación de su protección de sobrecorriente residual (51N).
01:35+	Empresa Eléctrica Capullo S.A.	Reconexión automática no exitosa del interruptor 52B2 de S/E Aihuapi, asociado a la línea 66 kV Aihuapi - Los Negros, por operación de su protección de cierre contra falla (SOTF).

- La hora señalada corresponde a lo informado por la Empresa Eléctrica Capullo S.A.

6. Normalización del servicio

Fecha	Involucrado	Hora	Acción
29/04/2023	Empresa Eléctrica Capullo S.A.	01:39	Intento de cierre sin éxito del interruptor 52B2 de S/E Aihuapi.
29/04/2023	Empresa Eléctrica Capullo S.A.	01:42	Recuperados la totalidad de los consumos afectados en la S/E Los Negros, por maniobras realizadas en media tensión.
29/04/2023	Empresa Eléctrica Capullo S.A.	03:13	Apertura del desconectador 89BT1-1 de S/E Los Negros.
29/04/2023	Empresa Eléctrica Capullo S.A.	03:16	Apertura del desconectador 89B2-2 de S/E Aihuapi.
29/04/2023	Empresa Eléctrica Capullo S.A.	03:17	Cierre del desconectador 89B2-2T de S/E Aihuapi.
29/04/2023	Empresa Eléctrica Capullo S.A.	03:39	Cierre del desconectador 89BT1-1T de S/E Los Negros, quedando la línea 66 kV Aihuapi - Los Negros conectada a tierra en ambos extremos.
29/04/2023	Empresa Eléctrica Capullo S.A.	11:30	Se inician los trabajos de reparación de la línea 66 kV Aihuapi - Los Negros.
30/04/2023	Empresa Eléctrica Capullo S.A.	03:10	Finalizan los trabajos de reparación de la línea 66 kV Aihuapi - Los Negros.
30/04/2023	Empresa Eléctrica Capullo S.A.	03:50	Apertura de los desconectadores 89B2-2T de S/E Aihuapi y 89BT1-1T de S/E Los Negros, desconectando de tierra la línea 66 kV Aihuapi - Los Negros.
30/04/2023	Empresa Eléctrica Capullo S.A.	03:51	Cierre del desconectador 89BT1-1 de S/E Los Negros.
30/04/2023	Empresa Eléctrica Capullo S.A.	03:52	Cierre del desconectador 89B2-2 de S/E Aihuapi.
30/04/2023	Empresa Eléctrica Capullo S.A.	03:54	Cierre con éxito del interruptor 52B2 de S/E Aihuapi, energizando en vacío la línea 66 kV Aihuapi - Los Negros.
30/04/2023	Empresa Eléctrica Capullo S.A.	07:57	Cierre con éxito del interruptor 52ET1 de S/E Los Negros, normalizando la conexión de la línea 66 kV Aihuapi - Los Negros y la S/E Los Negros.

- Las horas y fechas señaladas corresponden a lo informado por la Empresa Eléctrica Capullo S.A.

ANEXO N°1

Informes de trabajos y fallas de instalaciones ingresados en el Sistema del Coordinador
Eléctrico Nacional por Empresa Eléctrica Capullo S.A.

Resumen

Fecha de envío al Coordinador Eléctrico : 29-04-2023 04:48

Finalizado

Número:

2023001927

Solicitante:

EMPRESA ELÉCTRICA CAPULLO S.A.

Empresa:

EMPRESA ELÉCTRICA CAPULLO S.A.

Tipo de Origen:

Externo

Línea:

AIHUAPI - LOS NEGROS 66KV

Tramo:

Tipo: secciones_tramos - AIHUAPI - LOS NEGROS 66KV C1

Nombre : AIHUAPI - LOS NEGROS 66KV C1

Fecha Perturbacion : 29-04-2023 01:35

Fecha Normaliza : 29-04-2023 20:00

Protección : 50/51N

Interruptor : 52B2 SE Aihuapi

Consumo : 1.97MW

Comentario : Interrupción LTx 66kV Aihuapi - Los negros, dejando sin energía SE Los Negros, poste chocado estructura N° 241 por mal tiempo en la zona

Zona Afectada

Los Lagos

Comuna

Osorno

Tipo Causa

Causa Presunta

Causa Principal

Comentarios Tipo Causa:

Interrupción LTx 66kV Aihuapi - Los negros, dejando sin energía SE Los Negros, poste chocado estructura N° 241 por mal tiempo en la zona

Causas

-**Fenómeno Físico:** Origen no determinado.

-**Elemento:** Interruptores

-**Fenómeno Eléctrico:** Protección de sobrecorriente temporizada residual

-**Operación de los interruptores:** Opera según lo esperado

Comentarios Causas:

-Fenómeno Físico:

-Elemento:

-Fenómeno Eléctrico:

-Operación de los interruptores:

Observaciones:

-Observaciones: Interrupción LTx 66kV Aihuapi-Los Negros, (52B2 SE Aihuapi), dejando sin energía SE Los Negros, poste chocado en ruta Estructura N°241 (mal tiempo en la Zona)

-Acciones Inmediatas: Se da aviso al Coordinador Eléctrico Nacional del evento sucedido, se da aviso al Jefe Zonal Tx Osorno, se interrogan protecciones para visualizar tipo y distancia de la falla.

-Hechos Sucuidos: 01:35hrs se visualizan alarmas SCADA de interrupción LTx 66kV Aihuapi-Los Negros (52B2 SE Aihuapi), dejando sin energía a SE Los Negros con una potencia 1.97MW y 1494 clientes perdidos de los cuales 876 son de Luz Osorno y 542 son de SAESA , se da aviso al despacho de Distribución Dx, al Jefe Zonal Osorno Tx y se revisan protecciones para determinar origen y distancia de la falla . 01:38hrs se abre 52ET1 SE Los Negros para intentar un cierre en vacío de la Linea LTx Aihuapi-Los Negros sin éxito. 01:42hrs El despacho de Distribución Dx informa el 100% de los consumos recuperados , 03:15hrs personal de mantenimiento informa poste chocado en la Línea , estructura N°241 y se coordina para su reparación.

-Acciones Correctivas a Corto Plazo: Movilización de personal a terreno para normalización de la línea LTx 66kV Aihuapi-Los Negros

-Acciones Correctivas a Largo Plazo: No Hay

Afecta SSCC:

Afecta Medidores:

No

Afecta Protecciones:

No

Consumo:

Consumo Regulado

Distribuidoras Afectadas

SOCIEDAD AUSTRAL DE ELECTRICIDAD S.A. / Perd. Estm. de Potencia: 1.97 / Región : Los Lagos / Clientes Afectados: 1494

Retorno Automatico:

No Tiene Retorno Automático

Fecha / Hora Perturbación de la Solicitud:

29-04-2023 01:35

Fecha / Hora Estimada Retorno:

29-04-2023 20:00

Fecha / Hora Efectiva Retorno:

30-04-2023 03:54

Archivo	Fecha Subida
 2023001927_Aihuapi_Los_Negros.pdf (/informe_fallas/download_file/644cbd0aad651f32412a108f/2023001927_Aihuapi_Los_Negros.pdf)	09/05/2023 23:41:46
 Data.zip (/informe_fallas/download_file/644cbd0aad651f32412a108f/Data.zip)	09/05/2023 23:41:52
 Anexo N°1 Informe mantenimiento Reparación.pdf (/informe_fallas/download_file/644cbd0aad651f32412a108f/Anexo N°1 Informe mantenimiento Reparación.pdf)	09/05/2023 23:42:05
 Anexo N°2 Declaración Jurada.pdf (/informe_fallas/download_file/644cbd0aad651f32412a108f/Anexo N°2 Declaración Jurada.pdf)	09/05/2023 23:42:05

ANEXO N°2

Otros antecedentes aportados por Empresa Eléctrica Capullo S.A.



INFORME DE FALLA
INTERRUPCION LINEA 66 KV AIHUAPI – LOS NEGROS
29 de abril 2023

N° Informe CEN	2023001927		
Fecha de envío	09/05/2023	Hora	23:45
Realizó:	Israel Beroiz – Ernesto Pérez		
Revisó:	Benjamín Urrutia Ayamante		
Aprobó:	Juan Pablo Antriao Molina.		

1. Coordinado afectado

Propietario	Empresa Eléctrica Capullo S.A.
RUT Propietario	96.637.520-5
Representante legal	Pablo Benario
Dirección legal	Justo Geisse 851

2. Instalación afectada

Instalación afectada	Línea 66 kV Aihuapi – Los Negros		
Ubicación instalación afectada	Osorno, región de los lagos		
Tipo de instalación	Línea Tx	Tensión	66 kV
Fecha inicio falla	29/04/2023	Hora	1:35
Fecha fin falla	30/04/2023	Hora	3:54
Duración	1 día, 2 horas y 19 minutos		

3. Información SEC

Comuna	Osorno	ID	10301
Fenómeno físico	Choque de vehículo a poste	Código	ACC3
Elemento	Estructuras o postación	Código	TX4
Fenómeno eléctrico	Protección de sobrecorriente temporizada residual	Código	PR51N
Modo interruptores	Opera según lo esperado	Código	13
Causa falla	Choque de vehículo contra poste de concreto de la línea 66 kV Aihuapi – Los Negros provoca colapso de estructura 241 (sin conductor dañado)		
Proposición del coordinado respecto al origen de falla	Fuerza Mayor		

4. Reiteración

La instalación no ha sido afectada por este tipo de falla durante los últimos 24 meses móviles

5. Instalaciones de Tx afectadas

Elemento Afectado	Propietario	Hora desconexión	Hora normalización
S/E Los Negros	Sistema de Transmisión del Sur S.A.	29-04-23 1:35	30-04-23 3:54

6. Instalaciones de Gx afectadas:

Central	SE	Interruptor asociado	Perdida de Generación [MW]	Hora desconexión	Hora normalización	Empresa
No hay	-	-	-	-	-	-

7. Protecciones operadas:

Función activada	SSEE	Interruptor	Protección asociada
51G	Aihuapi	52B2	SEL 311C (S1)
51G	Aihuapi	52B2	SEL 311C (S2)

8. Consumos afectados:

Subestación	Alimentador	Comunas afectadas	Consumos [MW]	Clientes afectados	Hora desconexión	Hora normalización
Los Negros	E1 Los Negros	Osorno Puyehue	0,49	570	1:35:30	1:42:00(*)
Los Negros	E2 Los Negros - Saesa	Osorno Puyehue	1,48	924	1:35:30	1:42:00(*)
		Total	1,97	1.494		

(*) Clientes recuperados a través de la red de Dx

9. Estimación de la energía no suministrada:

Subestación	Alimentador	Empresa Dx	Tipo de cliente	Pérdida de Consumo [MW]	Tiempo desconexión (h)	ENS
Los Negros	E1 Los Negros	Luz Osorno	Regulado	0,49	0,11	0,053
Los Negros	E2 Los Negros - Saesa	Saesa	Regulado	1,48	0,11	0,160
					Total	0,213

10. Cronología de eventos y maniobras de normalización:

Hora	Eventos 29/04/23
1:35	Interrupción línea 66 kV Aihuapi – Los Negros.
1:36	Se da aviso al CDC del Coordinador interrupción línea 66 kV Aihuapi – Los Negros. Se solicita autorización para intento de cierre de la línea en vacío.
1:38	Se da aviso a Saesa sin energía S/E Los Negros tras interrupción línea 66 kV Aihuapi – Los Negros.
1:39	Intento de cierre sin éxito del 52B2 en S/E Aihuapi.
1:40	Se da aviso a personal de mantenimiento STS intento de cierre sin éxito, personal de mantenimiento informa que recorrerá la línea.
1:40	Se solicita a Saesa recuperar los consumos a través de la red de Dx.
1:42	Saesa informa recuperado el 100% de los consumos a través de la red de Dx.
3:11	Personal de mantenimiento STS informa estructura 241 chocado por vehículo de tercero. Personal solicita aterrizar la línea para comenzar con trabajos de despeje de la ruta.
3:13	Apertura 89BT1-1 en S/E Los Negros
3:16	Apertura 89B2-2 en S/E Aihuapi
3:17	Cierre 89B2-2T en S/E Aihuapi
3:39	Cierre 89BT1-1T en S/E Los Negros, línea 66 kV Aihuapi – Los Negros aterrizada en ambos extremos.
6:48	Personal de mantenimiento STS informa tierras provisionales instaladas para la reparación de la línea. Se inician los trabajos de despeje de la ruta.
8:40	Personal de mantenimiento STS informa despejada la ruta.
11:30	Personal de mantenimiento STS informa que se encuentra retirado el vehículo y comenzaran los trabajos de reparación de la línea.
Hora	Eventos 30/04/23
3:10	Personal de mantenimiento STS informa reparada la línea y se comenzara con el retiro de rierras provisionales.
3:39	Personal de mantenimiento informa retiradas las puesta a tierra provisionales de la línea.
3:46	Se da aviso al CDC que la línea se encuentra reparada y se solicita autorización para la normalización de esta.
3:50	Apertura 89B2-2T en S/E Aihuapi y 89BT1-1T en S/E Los Negros, línea 66 kV Aihuapi – Los Negros des aterrizada.
3:51	Cierre 89BT1-1 en S/E Los Negros.
3:52	Cierre 89B2-2 en S/E Aihuapi.
3:54	Cierre con éxito del 52B2 de S/E Aihuapi, queda la línea energizada en vacío.
7:57	Cierre con éxito del 52ET1 en S/E Los Negros en coordinación con Saesa, se recupera la topología de la red.

11. Esquema de las instalaciones anterior a la falla:

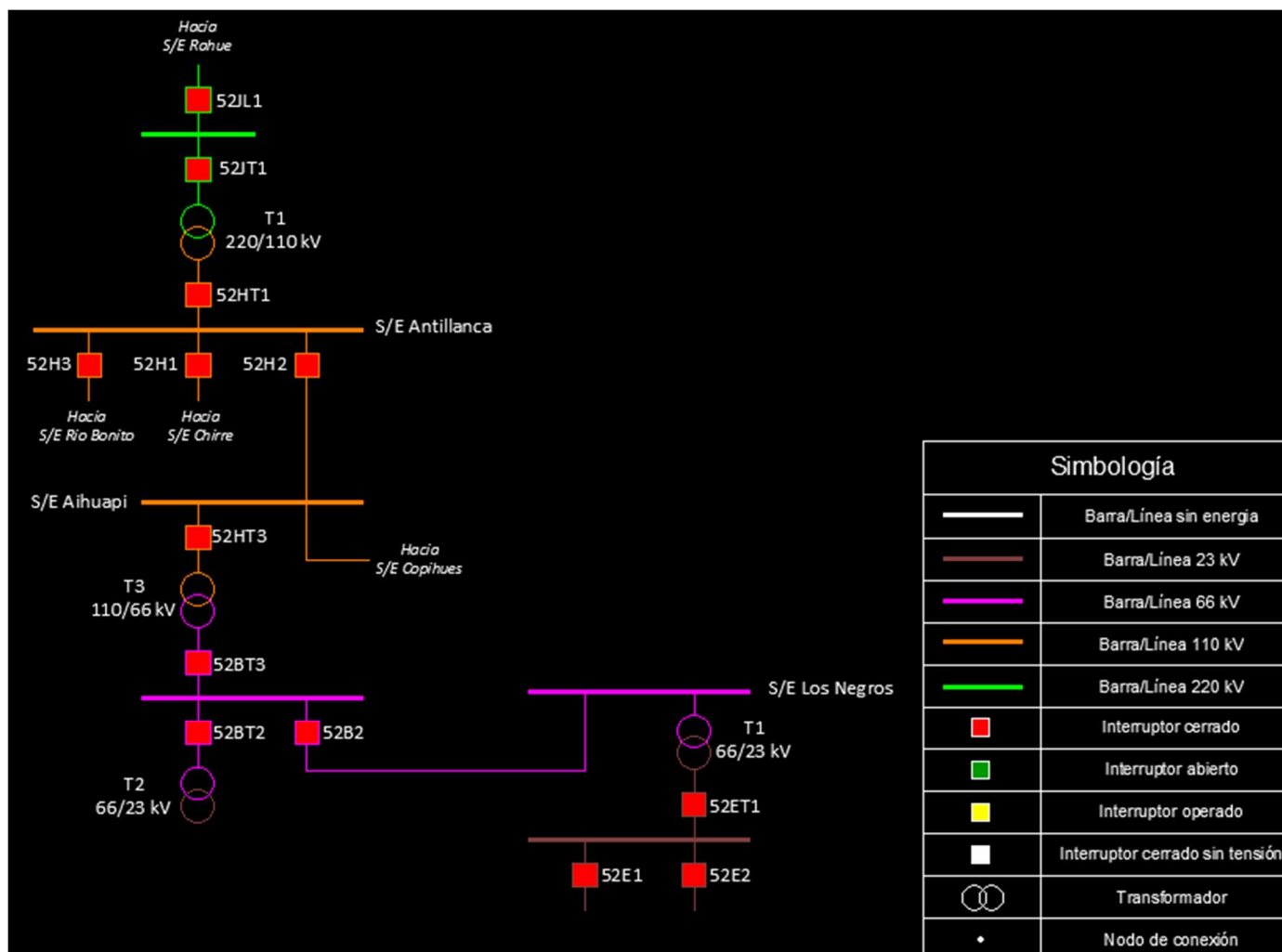


Figura 1: Unilineal simplificado con la disposición de las instalaciones anterior al evento.

11.1 Esquema de las instalaciones posterior a la falla:

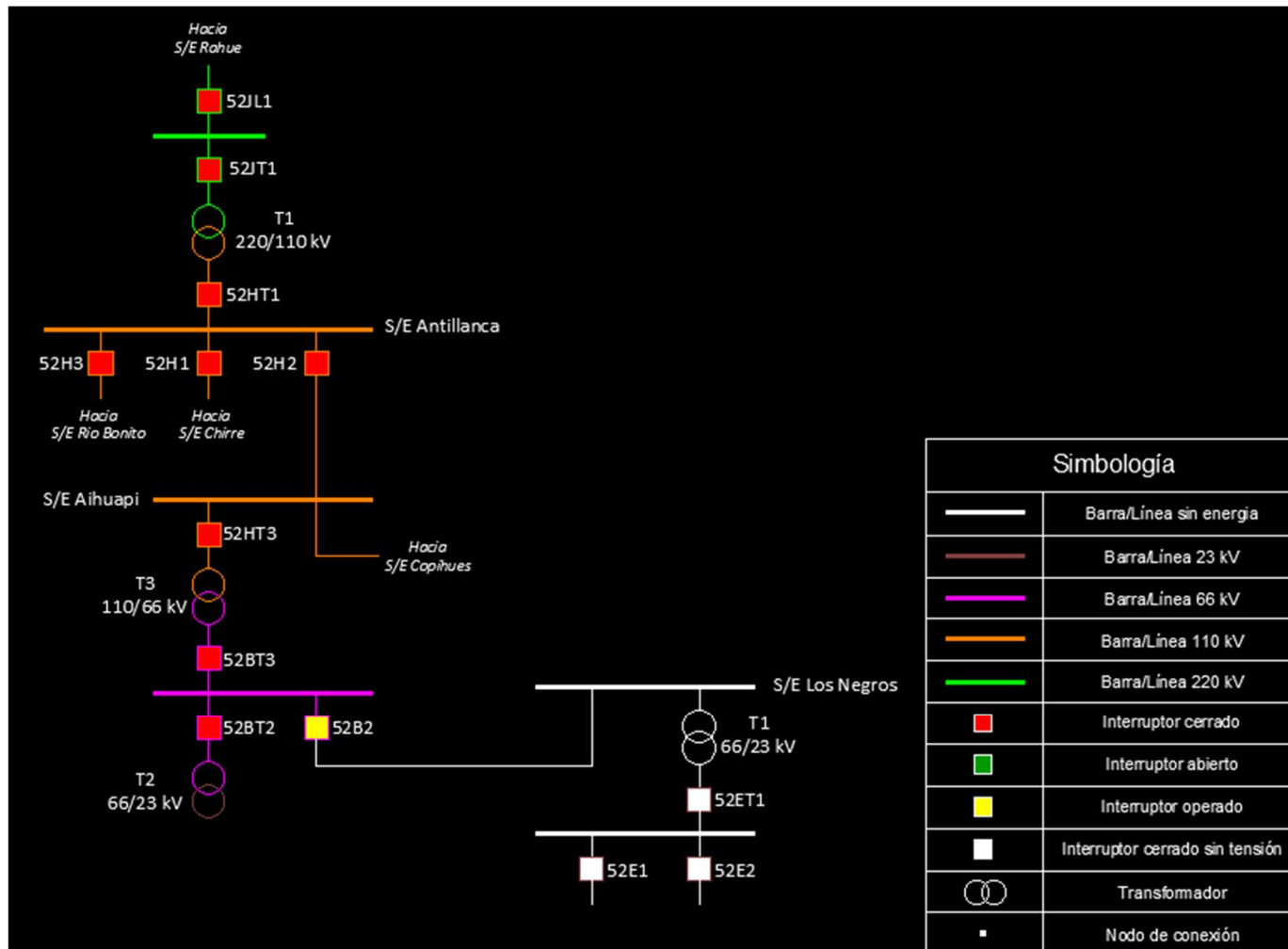


Figura 2: Unilineal simplificado con la disposición de las instalaciones posterior al evento.

12. Listado de eventos generados y registrados en SCADA:

HIST_TIMESTAMP	LOCATION	COMPID	TEXT
29-04-2023 1:35:30	AIHUAPI	AIHUAPI.B_B02.52B2.EST	AIH_52B2 52B2 ESTADO ABIERTO/CERRADO ABIERTO
29-04-2023 1:35:33	AIHUAPI	AIHUAPI.B_B02.52B2.EST	AIH_52B2 52B2 ESTADO ABIERTO/CERRADO CERRADO
29-04-2023 1:35:33	AIHUAPI	AIHUAPI.B_B02.52B2.EST	AIH_52B2 52B2 ESTADO ABIERTO/CERRADO ABIERTO
29-04-2023 1:38:22	LOSNEGRO	LOSNEGRO.E_T01.52ET1.EST	52ET1 ESTADO INTERRUPTOR ABIERTO By EPEREZ
29-04-2023 1:39:21	AIHUAPI	AIHUAPI.B_B02.52B2.EST	AIH_52B2 52B2 ESTADO ABIERTO/CERRADO CERRADO By EPEREZ
29-04-2023 1:39:24	AIHUAPI	AIHUAPI.B_B02.52B2.EST	AIH_52B2 52B2 ESTADO ABIERTO/CERRADO ABIERTO
29-04-2023 3:13:10	LOSNEGRO	LOSNEGRO.B_T01.89BT1_1.EST	89BT1-1 ESTADO DESCONECTADOR ABIERTO By SCADA
29-04-2023 3:16:48	AIHUAPI	AIHUAPI.B_B02.89B2_2.EST	AIH_89B2-2 ESTADO ABIERTO/CERRADO ABIERTO By SCADA
29-04-2023 3:17:18	AIHUAPI	AIHUAPI.B_B02.89B2_2T.EST	AIH_89B2-2T ESTADO ABIERTO/CERRADO CERRADO By EPEREZ
29-04-2023 3:39:22	LOSNEGRO	LOSNEGRO.B_T01.89BT1_1T.EST	89BT1-1T ESTADO DESCONECTADOR CERRADO
30-04-2023 3:50:26	AIHUAPI	AIHUAPI.B_B02.89B2_2T.EST	AIH_89B2-2T ESTADO ABIERTO/CERRADO ABIERTO By SCADA
30-04-2023 3:50:53	LOSNEGRO	LOSNEGRO.B_T01.89BT1_1T.EST	89BT1-1T ESTADO DESCONECTADOR ABIERTO By SCADA
30-04-2023 3:51:19	LOSNEGRO	LOSNEGRO.B_T01.89BT1_1.EST	89BT1-1 ESTADO DESCONECTADOR CERRADO By EPEREZ
30-04-2023 3:52:26	AIHUAPI	AIHUAPI.B_B02.89B2_2.EST	AIH_89B2-2 ESTADO ABIERTO/CERRADO CERRADO By EPEREZ
30-04-2023 3:54:08	AIHUAPI	AIHUAPI.B_B02.52B2.EST	AIH_52B2 52B2 ESTADO ABIERTO/CERRADO CERRADO By EPEREZ
30-04-2023 7:57:25	LOSNEGRO	LOSNEGRO.E_T01.52ET1.EST	LOSNEGRO.E_T01.52ET1.EST .CERRAR CTRL ISSUED BY EMUNOZ

13. Análisis de la actuación de protecciones y control:

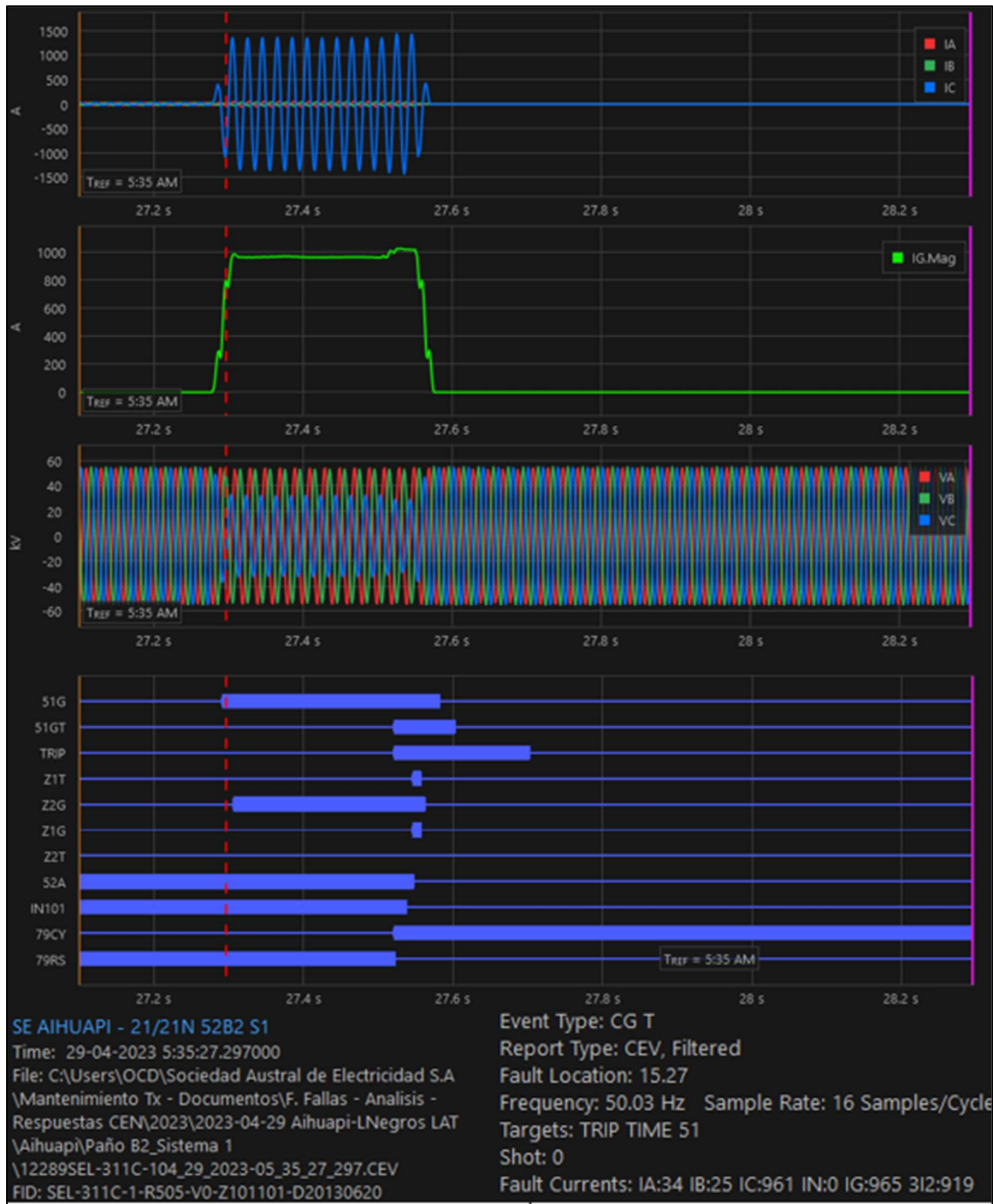
13.1 S/E Aihuapi– Paño B2

Comportamiento protección de distancia 21/21N – Sistema 1 – Modelo SEL 311C

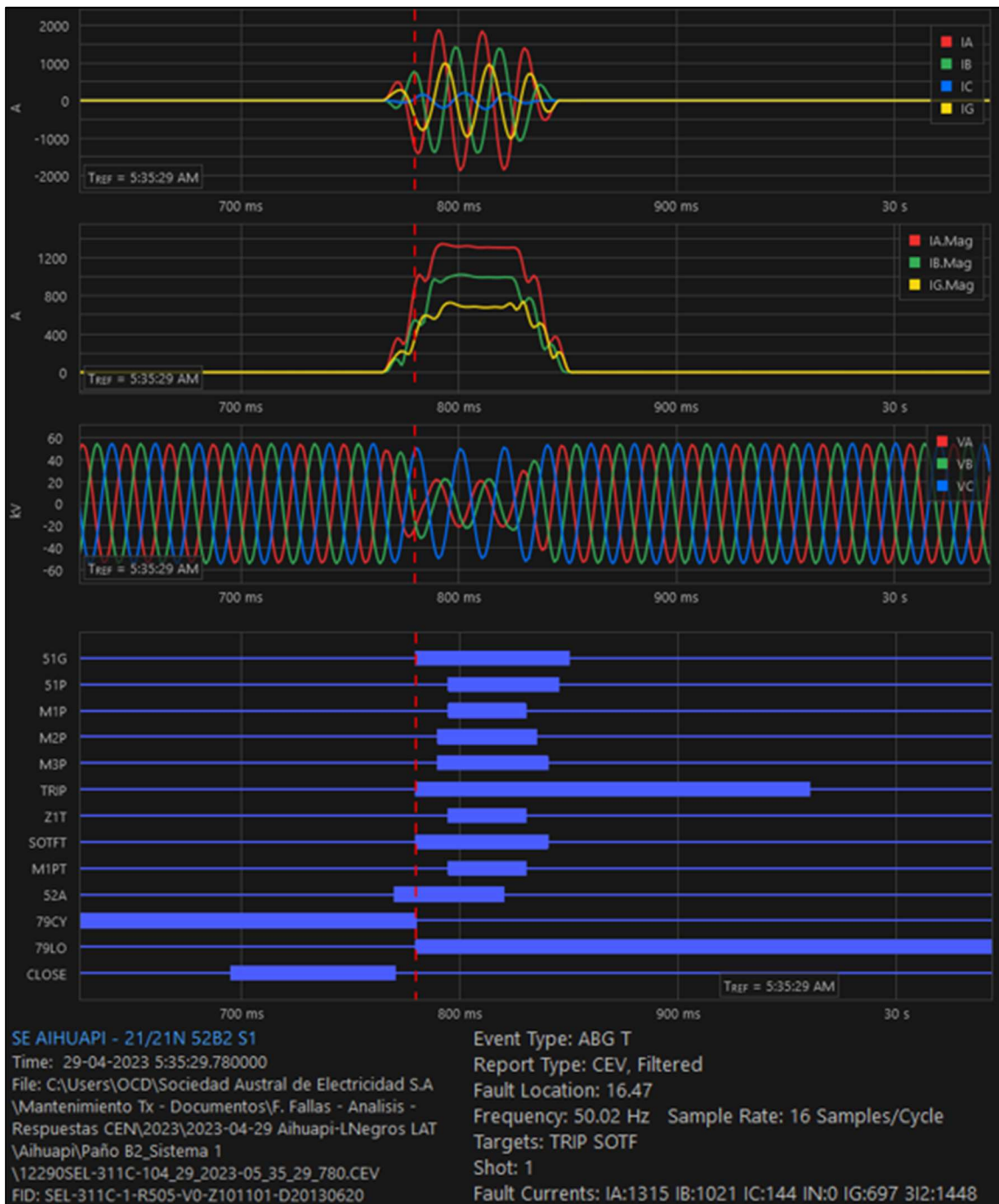
Registro de eventos N°1: Relé 21/21N – S1

21/21N 5282 S1		Date: 04/29/23		Time: 09:52:47.166
SE AIHUAPI				
FID=SEL-311C-1-R505-V0-Z101101-D20130620		CID=D6A4		
#	Date	Time	Element	State
71	03/22/23	19:18:57.390	IN102	Asserted
70	04/29/23	05:35:27.292	S1G	Asserted
69	04/29/23	05:35:27.307	Z2G	Asserted
68	04/29/23	05:35:27.521	S1GT	Asserted
67	04/29/23	05:35:27.521	TRIP	Asserted
66	04/29/23	05:35:27.521	OUT101	Asserted
65	04/29/23	05:35:27.521	OUT102	Asserted
64	04/29/23	05:35:27.521	79CY	Asserted
63	04/29/23	05:35:27.521	79RS	Deasserted
62	04/29/23	05:35:27.536	IN101	Deasserted
61	04/29/23	05:35:27.546	Z1T	Asserted
60	04/29/23	05:35:27.546	Z1G	Asserted
59	04/29/23	05:35:27.556	Z1T	Deasserted
58	04/29/23	05:35:27.556	Z1G	Deasserted
57	04/29/23	05:35:27.561	Z2G	Deasserted
56	04/29/23	05:35:27.581	S1G	Deasserted
55	04/29/23	05:35:27.601	S1GT	Deasserted
54	04/29/23	05:35:27.701	TRIP	Deasserted
53	04/29/23	05:35:27.701	OUT101	Deasserted
52	04/29/23	05:35:27.701	OUT102	Deasserted
51	04/29/23	05:35:29.695	CLOSE	Asserted
50	04/29/23	05:35:29.695	OUT105	Asserted
49	04/29/23	05:35:29.770	CLOSE	Deasserted
48	04/29/23	05:35:29.770	IN101	Asserted
47	04/29/23	05:35:29.770	OUT105	Deasserted
46	04/29/23	05:35:29.780	S1G	Asserted
45	04/29/23	05:35:29.780	SOTFT	Asserted
44	04/29/23	05:35:29.780	TRIP	Asserted
43	04/29/23	05:35:29.780	OUT101	Asserted
42	04/29/23	05:35:29.780	OUT102	Asserted
41	04/29/23	05:35:29.780	79LO	Asserted
40	04/29/23	05:35:29.780	79CY	Deasserted
39	04/29/23	05:35:29.790	M2P	Asserted
38	04/29/23	05:35:29.790	M3P	Asserted
37	04/29/23	05:35:29.795	Z1T	Asserted
36	04/29/23	05:35:29.795	M1P	Asserted
35	04/29/23	05:35:29.795	S1P	Asserted
34	04/29/23	05:35:29.810	IN101	Deasserted
33	04/29/23	05:35:29.830	Z1T	Deasserted
32	04/29/23	05:35:29.830	M1P	Deasserted
31	04/29/23	05:35:29.835	M2P	Deasserted
30	04/29/23	05:35:29.840	SOTFT	Deasserted
29	04/29/23	05:35:29.840	M3P	Deasserted
28	04/29/23	05:35:29.845	S1P	Deasserted
27	04/29/23	05:35:29.850	S1G	Deasserted
26	04/29/23	05:35:29.960	TRIP	Deasserted
25	04/29/23	05:35:29.960	OUT101	Deasserted
24	04/29/23	05:35:29.960	OUT102	Deasserted
23	04/29/23	05:39:04.000	IN102	Deasserted
22	04/29/23	05:39:17.589	IN101	Asserted
21	04/29/23	05:39:17.600	S1G	Asserted
20	04/29/23	05:39:17.600	SOTFT	Asserted
19	04/29/23	05:39:17.600	TRIP	Asserted
18	04/29/23	05:39:17.600	OUT101	Asserted
17	04/29/23	05:39:17.600	OUT102	Asserted
16	04/29/23	05:39:17.605	M3P	Asserted
15	04/29/23	05:39:17.610	Z1T	Asserted
14	04/29/23	05:39:17.610	M2P	Asserted
13	04/29/23	05:39:17.610	M1P	Asserted
12	04/29/23	05:39:17.615	S1P	Asserted
11	04/29/23	05:39:17.630	IN101	Deasserted
10	04/29/23	05:39:17.640	Z1T	Deasserted
9	04/29/23	05:39:17.640	M1P	Deasserted
8	04/29/23	05:39:17.645	M2P	Deasserted
7	04/29/23	05:39:17.650	SOTFT	Deasserted
6	04/29/23	05:39:17.650	M3P	Deasserted
5	04/29/23	05:39:17.655	S1P	Deasserted
4	04/29/23	05:39:17.660	S1G	Deasserted
3	04/29/23	05:39:17.780	TRIP	Deasserted
2	04/29/23	05:39:17.780	OUT101	Deasserted
1	04/29/23	05:39:17.780	OUT102	Deasserted

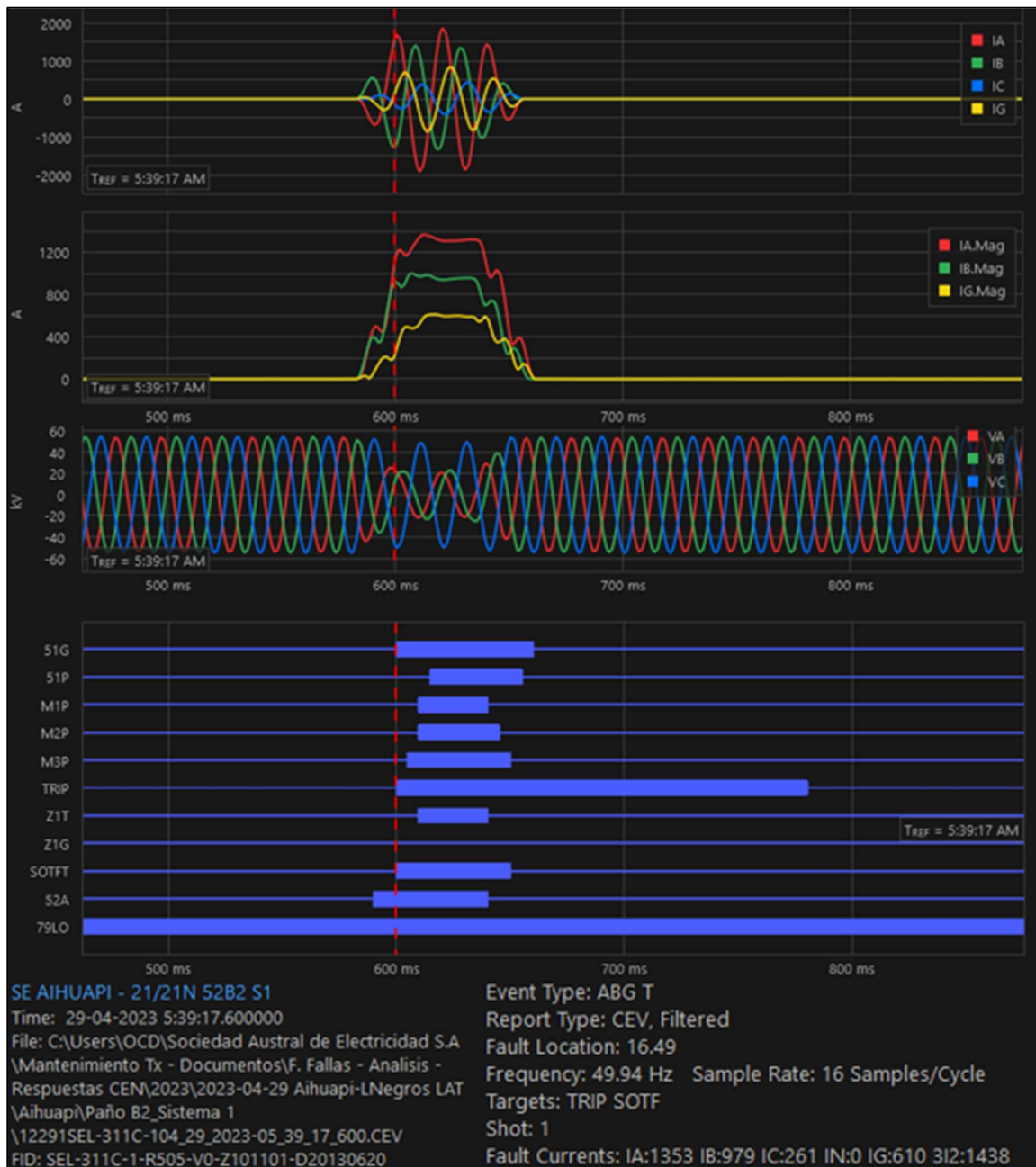
Registro de oscilografías N°1 Relé 21/21N – S1



Registro de oscilografías N°2 Relé 21/21N – S1



Registro de oscilografías N°3 Relé 21/21N – S1



Observaciones:

De acuerdo con Registro de Eventos N°1 y Oscilografía N°1, a partir de las 05:35:27,292 horas UTC-0 de fecha 29 de abril de 2023, en relé de protección sistema 1 de paño B2 en S/E Aihuapi correspondiente a línea 66kV Los Negros, se detecta arranque de protección sobrecorriente residual de tiempo inverso, 51G. Lo anterior corresponde a detección de corto circuito monofásico a tierra en fase C de magnitud 965A primarios en corriente residual IG. Posteriormente, se detecta arranque de elemento de protección de distancia en segunda zona residual, Z2G, y a continuación, ocurre disparo de elemento 51G, 51GT, y simultáneamente trip general, envío de desenganche sobre bobina 1 y 2 de interruptor, OUT101-OUT102 y, arranque de ciclo de reconexión automática, 79CY. El tiempo de operación del relé de protección fue de 229ms. Finalmente se produce el desenganche efectivo del Interruptor 52B2 con tiempo de aislación de falla de 285ms y localizador de falla en 15,27km hacia extremo S/E Los Negros.

De acuerdo con Registro de Eventos N°1 y Oscilografía N°2, a las 05:35:29,695 horas UTC-0 de fecha 29 de abril de 2023, el relé de protección sistema 1 de paño B2 en S/E Aihuapi envía orden de re-cierre por función reconexión automática, CLOSE, sobre interruptor produciéndose el cierre efectivo de éste. 10ms más tarde se detecta activación de pickup de elemento de protección sobrecorriente residual de tiempo inverso, 51G. Lo anterior corresponde a detección de corto circuito bifásico a tierra en fases A-B de magnitud 697A primarios en corriente residual IG. Simultáneamente, se produce el disparo instantáneo de protección cierre contra falla, SOTF, Trip general, envío de desenganche sobre interruptor y término del ciclo de reconexión por lockout, 79LO. Finalmente se produce el desenganche efectivo del Interruptor 52B2 con tiempo de aislación de falla de 75ms y localizador de falla en 16,47km hacia extremo S/E Los Negros.

De acuerdo con Registro de Eventos N°1 y Oscilografía N°3, a las 05:39:17,589 horas UTC-0 de fecha 29 de abril de 2023, el relé de protección sistema 1 de paño B2 en S/E Aihuapi detecta cambio de estado a posición cerrado de interruptor, IN101. 11ms más tarde se detecta activación de pickup de elemento de protección sobrecorriente residual de tiempo inverso, 51G. Lo anterior corresponde a detección de corto circuito bifásico a tierra en fases A-B de magnitud 610A primarios en corriente residual IG. Simultáneamente, se produce el disparo instantáneo de protección cierre contra falla, SOTF, Trip general, envío de desenganche sobre interruptor. Finalmente se produce el desenganche efectivo del Interruptor 52B2 con tiempo de aislación de falla de 70ms y localizador de falla en 16,49km hacia extremo S/E Los Negros.

En resumen, con fecha 29 de abril de 2023 el relé sistema 1 de paño 66kV B2 de S/E Aihuapi correspondiente a línea Los Negros, opera en tres oportunidades, despejando fallas en la Línea por elementos de protección de sobrecorriente residual direccional y cierre contra falla SOTF. Las Fallas detectadas corresponden a tres cortocircuitos: monofásico a tierra en fase C de 965A residual, bifásico a tierra en fases A-B de 697A residual y, bifásico a tierra en fases A-B de 610A residual.

Conclusiones:

Relé sistema 1, 21/21N-B2 en S/E Aihuapi, se desempeña correctamente.

Comportamiento protección de distancia 21/21N – Sistema 2 – Modelo SEL 311C

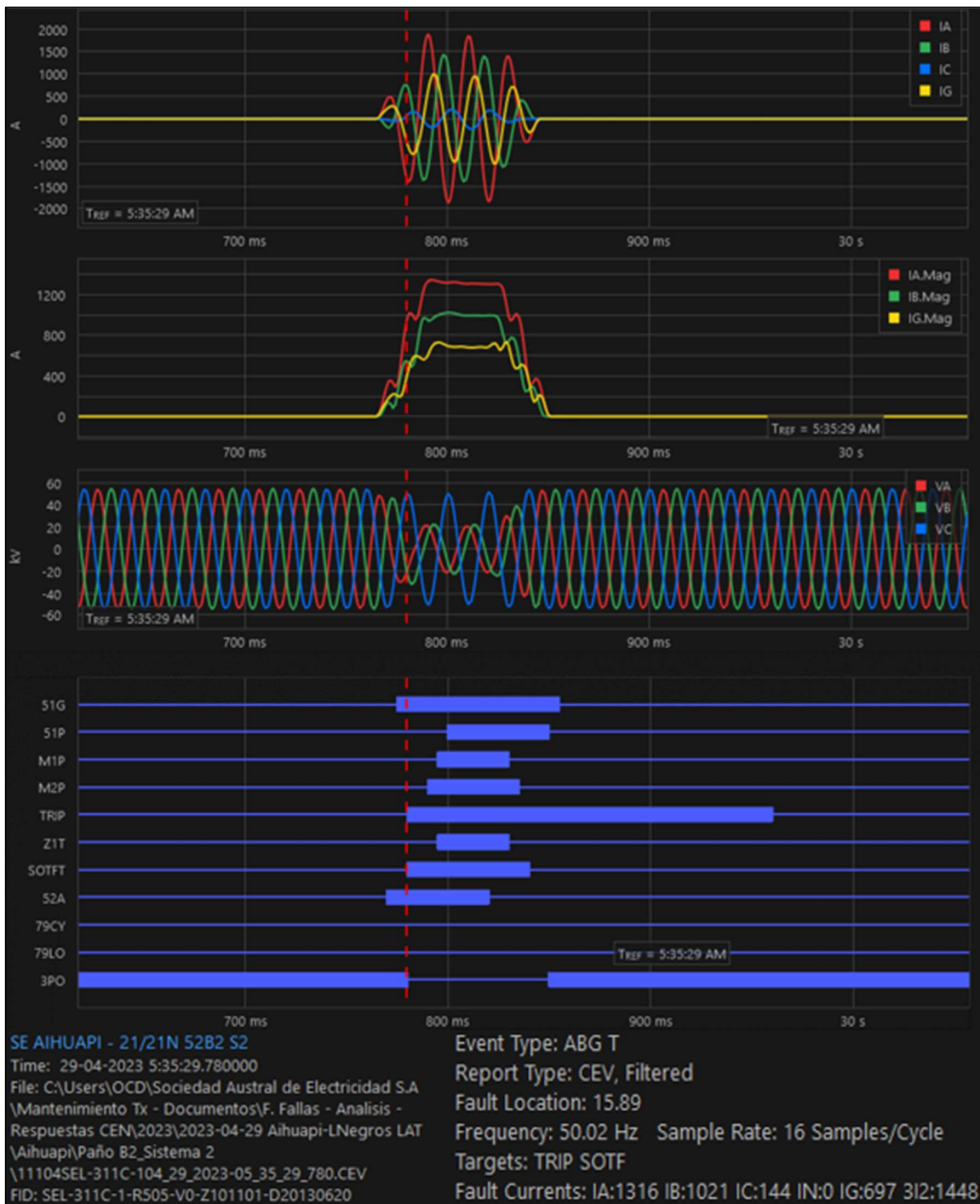
Registro de eventos N°2: Relé 21/21N – S2

21/21N 5282 S2			Date: 04/29/23	Time: 10:01:52.223
SE AIHUAPI				
FID=SEL-311C-1-R505-V0-Z101101-D20130620				CID=D6A4
#	Date	Time	Element	State
58	03/06/23	16:59:29.973	LOP	Deasserted
57	04/29/23	05:35:27.297	S1G	Asserted
56	04/29/23	05:35:27.307	Z2G	Asserted
55	04/29/23	05:35:27.507	S1GT	Asserted
54	04/29/23	05:35:27.507	TRIP	Asserted
53	04/29/23	05:35:27.507	OUT101	Asserted
52	04/29/23	05:35:27.507	OUT102	Asserted
51	04/29/23	05:35:27.537	IN101	Deasserted
50	04/29/23	05:35:27.547	Z1T	Asserted
49	04/29/23	05:35:27.547	Z1G	Asserted
48	04/29/23	05:35:27.557	Z1T	Deasserted
47	04/29/23	05:35:27.557	Z1G	Deasserted
46	04/29/23	05:35:27.562	Z2G	Deasserted
45	04/29/23	05:35:27.577	S1G	Deasserted
44	04/29/23	05:35:27.597	S1GT	Deasserted
43	04/29/23	05:35:27.687	TRIP	Deasserted
42	04/29/23	05:35:27.687	OUT101	Deasserted
41	04/29/23	05:35:27.687	OUT102	Deasserted
40	04/29/23	05:35:29.770	IN101	Asserted
39	04/29/23	05:35:29.775	S1G	Asserted
38	04/29/23	05:35:29.780	SOTFT	Asserted
37	04/29/23	05:35:29.780	TRIP	Asserted
36	04/29/23	05:35:29.780	OUT101	Asserted
35	04/29/23	05:35:29.780	OUT102	Asserted
34	04/29/23	05:35:29.790	M2P	Asserted
33	04/29/23	05:35:29.795	Z1T	Asserted
32	04/29/23	05:35:29.795	M1P	Asserted
31	04/29/23	05:35:29.800	S1P	Asserted
30	04/29/23	05:35:29.810	IN101	Deasserted
29	04/29/23	05:35:29.830	Z1T	Deasserted
28	04/29/23	05:35:29.830	M1P	Deasserted
27	04/29/23	05:35:29.835	M2P	Deasserted
26	04/29/23	05:35:29.840	SOTFT	Deasserted
25	04/29/23	05:35:29.850	S1P	Deasserted
24	04/29/23	05:35:29.855	S1G	Deasserted
23	04/29/23	05:35:29.960	TRIP	Deasserted
22	04/29/23	05:35:29.960	OUT101	Deasserted
21	04/29/23	05:35:29.960	OUT102	Deasserted
20	04/29/23	05:39:17.590	IN101	Asserted
19	04/29/23	05:39:17.595	S1G	Asserted
18	04/29/23	05:39:17.600	SOTFT	Asserted
17	04/29/23	05:39:17.600	TRIP	Asserted
16	04/29/23	05:39:17.600	OUT101	Asserted
15	04/29/23	05:39:17.600	OUT102	Asserted
14	04/29/23	05:39:17.610	Z1T	Asserted
13	04/29/23	05:39:17.610	M2P	Asserted
12	04/29/23	05:39:17.610	M1P	Asserted
11	04/29/23	05:39:17.610	S1P	Asserted
10	04/29/23	05:39:17.630	IN101	Deasserted
9	04/29/23	05:39:17.640	Z1T	Deasserted
8	04/29/23	05:39:17.640	M1P	Deasserted
7	04/29/23	05:39:17.645	M2P	Deasserted
6	04/29/23	05:39:17.650	SOTFT	Deasserted
5	04/29/23	05:39:17.660	S1P	Deasserted
4	04/29/23	05:39:17.665	S1G	Deasserted
3	04/29/23	05:39:17.780	TRIP	Deasserted
2	04/29/23	05:39:17.780	OUT101	Deasserted
1	04/29/23	05:39:17.780	OUT102	Deasserted

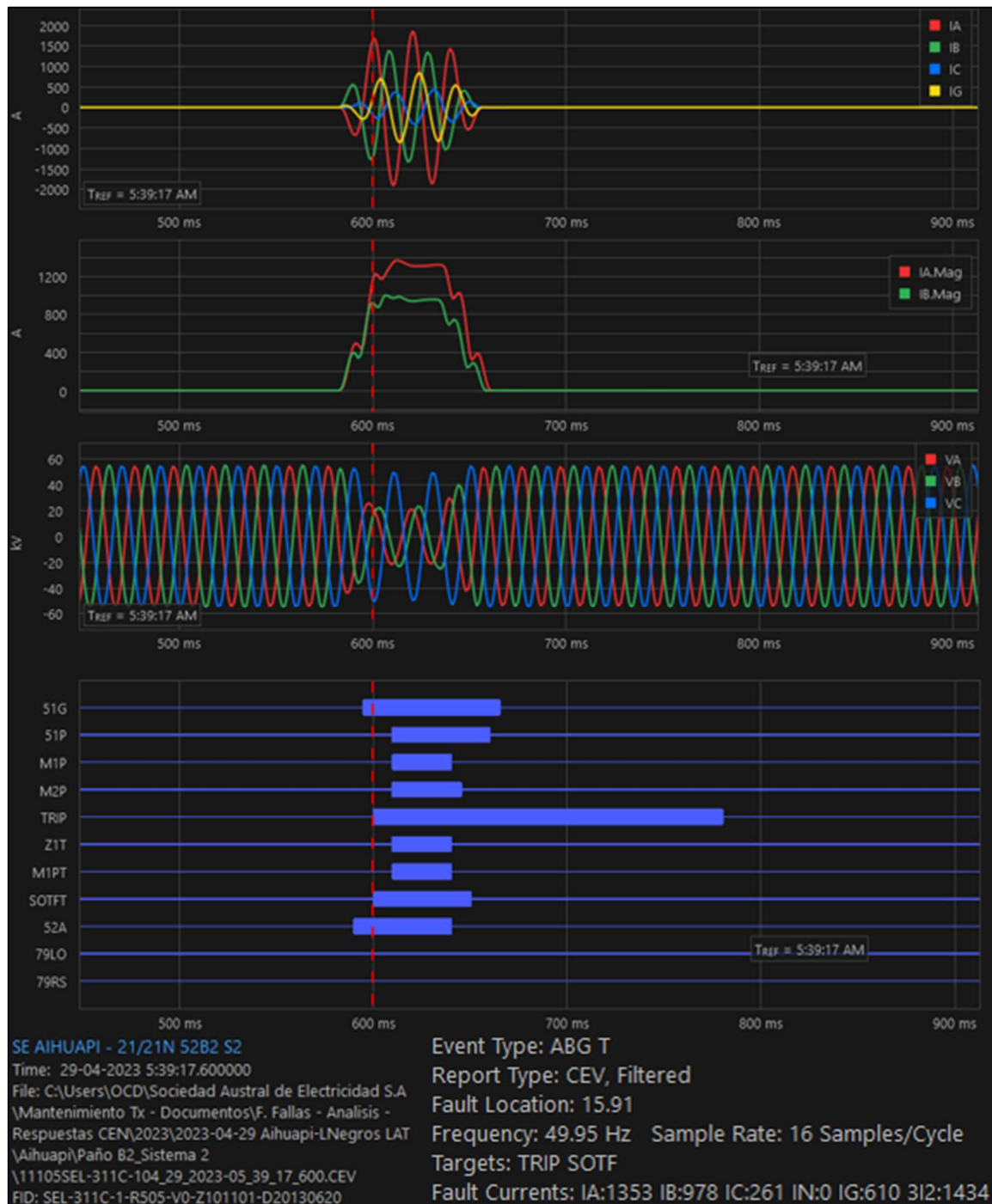
Registro de oscilografías N°4 Relé 21/21N – S2



Registro de oscilografías N°5 Relé 21/21N – S2



Registro de oscilografías N°6 Relé 21/21N – S2



Observaciones:

De acuerdo con Registro de Eventos N°2 y Oscilografía N°4, a partir de las 05:35:27,297 horas UTC-0 de fecha 29 de abril de 2023, en relé de protección sistema 2 de paño B2 en S/E Aihuapi correspondiente a línea 66kV Los Negros, se detecta arranque de protección sobrecorriente residual de tiempo inverso, 51G. Lo anterior corresponde a detección de corto circuito monofásico a tierra en fase C de magnitud 966A primarios en corriente residual IG. Posteriormente, se detecta arranque de elemento de protección de distancia en segunda zona residual, Z2G, y a continuación, ocurre disparo de elemento 51G, 51GT, y simultáneamente, Trip general, envío de desenganche sobre bobina 1 y 2 de interruptor, OUT101-OUT102. El tiempo de operación del relé de protección fue de 210ms. Finalmente se produce el desenganche efectivo del Interruptor 52B2 con tiempo de aislación de falla de 276ms y localizador de falla en 15,41km hacia extremo S/E Los Negros.

De acuerdo con Registro de Eventos N°2 y Oscilografía N°5, a las 05:35:29,770 horas UTC-0 de fecha 29 de abril de 2023, el relé de protección sistema 2 de paño B2 en S/E Aihuapi detecta cambio de estado a posición cerrado de interruptor, IN101. 5ms más tarde se detecta activación de pickup de elemento de protección sobrecorriente residual de tiempo inverso, 51G. Lo anterior corresponde a detección de corto circuito bifásico a tierra en fases A-B de magnitud 697A primarios en corriente residual IG. 5ms más tarde, se produce el disparo de protección cierre contra falla, SOTF, Trip general y envío de desenganche sobre interruptor. Finalmente se produce el desenganche efectivo del Interruptor 52B2 con tiempo de aislación de falla de 70ms y localizador de falla en 15,89km hacia extremo S/E Los Negros.

De acuerdo con Registro de Eventos N°2 y Oscilografía N°6, a las 05:39:17,5900 horas UTC-0 de fecha 29 de abril de 2023, el relé de protección sistema 2 de paño B2 en S/E Aihuapi detecta cambio de estado a posición cerrado de interruptor, IN101. 5ms más tarde se detecta activación de pickup de elemento de protección sobrecorriente residual de tiempo inverso, 51G. Lo anterior corresponde a detección de corto circuito bifásico a tierra en fases A-B de magnitud 610A primarios en corriente residual IG. 5ms más tarde, se produce el disparo de protección cierre contra falla, SOTF, Trip general y envío de desenganche sobre interruptor. Finalmente se produce el desenganche efectivo del Interruptor 52B2 con tiempo de aislación de falla de 69ms y localizador de falla en 15,91km hacia extremo S/E Los Negros.

En resumen, con fecha 29 de abril de 2023 el relé sistema 2 de paño 66kV B2 de S/E Aihuapi correspondiente a línea Los Negros, opera en tres oportunidades, despejando fallas en la Línea por elementos de protección de sobrecorriente residual direccional y cierre contra falla SOTF. Las Fallas detectadas corresponden a tres cortocircuitos: monofásico a tierra en fase C de 966A residual, bifásico a tierra en fases A-B de 697A residual y, bifásico a tierra en fases A-B de 610A residual.

Conclusiones:

Relé sistema 2, 21/21N-B2 en S/E Aihuapi, se desempeña correctamente.

14. Acciones correctivas a corto plazo:

- Sistema de Transmisión de Sur S.A. reparó la línea 66 kV Aihuapi – Los Negros el día 29-04-23. Para mayor detalle ver anexo N°1 “Informe Mantenimiento Reparación”

15. Probatorios y antecedentes según fenómeno físico:

15.1 Informe de interrupción

Fecha del informe: 09/05/2023

Empresa: Sistema de Transmisión del Sur S.A.

1. Información de la interrupción:

Causa de la interrupción:	Choque de vehículo contra poste de concreto de la línea 66 kV Aihuapi – Los Negros provoca colapso de estructura 241 (sin conductor dañado)
Propietario de la instalación o equipo donde ocurrió la falla	Sistema de Transmisión del Sur S.A.
Rut propietario instalación o equipo	77.312.201-6
Nombre de la instalación asociada	Linea 66 kV Aihuapi – Los Negros
Punto de falla N° (corresponde al de infraestructura GxTx)	Estructura N° 241
Dispositivo operado (id dispositivo de infraestructura GxTx)	ID 8772 – PS1 B2 21/21N ID 8774 – PS2 B2 21/21N
comunas afectadas (corresponde al “código único territorial (CUT)”, determinado por la subsecretaría de desarrollo regional)	ID:10301 – Osorno ID:10304 – Puyehue
Cantidad de clientes afectados (es la suma de todos los clientes de los n bloques de reposición de la interrupción)	1.494
Fecha y hora inicio interrupción	29-04-2023 01:35:30 hrs
Fecha y hora termino interrupción	30-04-2023 03:54:08 hrs (*)

(*) 100% Clientes afectados se recuperan a las 1:42 del 29-04-2023 través de red Dx.

2. Descripción de la interrupción.

2.1 Descripción de los hechos y de las circunstancias

El pasado sábado 29 de abril alrededor de las 01:39 horas, se notifica de una interrupción del sistema eléctrico en línea de 66 kV Aihuapi – Los Negros, en Subestación Aihuapi abre 52B2 por actuación de protecciones. Dicho evento deja fuera de servicio a Subestación Los Negros y afecta a 1494 clientes de las comunas de Osorno y Puyehue. A las 01:42 se recuperan el 100% de los clientes por red de distribución. De acuerdo con los datos obtenidos de las protecciones, se identifica el punto de falla a 15,6 km desde SE Aihuapi. Personal de mantenimiento en turno sale de forma inmediata para buscar causa de interrupción. A eso de las 03:14 personal de mantenimiento que se encontraba realizando recorrido pedestre, reporta causa de falla encontrando el punto de ocurrencia en la estructura 241 (coincidente con los datos de las protecciones de distancia), donde se encuentran postes de concreto tipo portal (Q5) colapsado producto del choque de camioneta contra sus bases a orillas de la ruta internacional 215. Producto del colapso de la estructura en la ruta, esta queda bloqueada para el tránsito en el lugar. Personal técnico evalúa y gestiona recursos para despejar la vía de forma segura, lográndose abrir el tránsito a eso de las 08:00 hrs, posterior al despeje de la vía se procede a comenzar con los trabajos de retiro de camioneta, postes dañados y con el reemplazo de estructura. La normalización de las estructuras y de la topología de la línea 66 kV Aihuapi – Los Negros, concluyen a las 03:54 hrs de la madrugada del domingo 30 de abril con la energización de línea en vacío.

2.2 Elementos mínimos requeridos que acreditan imprevisibilidad (Según R. Ex. N°15704/2016)

La falla se produce por un evento repentino, inesperado e imprevisible, ajeno a la transmisión de energía eléctrica, debido a la Interrupción producida por el choque de camioneta mazda PPU RCCC-96 según parte N° 198 generado por Carabineros de Chile contra portal N° 241 de la línea de 66 kV Aihuapi – Los Negros, esto provocó que el portal colapsara y cayera sobre la ruta, provocando la interrupción del suministro, lo cual alteró el orden regular de las actividades asociadas a las instalaciones eléctricas, es decir, generó un efecto anormal en las redes eléctricas, ya que éstas no están diseñadas, conforme con la normativa eléctrica, para soportar daños causados por un choque de vehículos en las, ni para operar en ese tipo de condiciones anormales

2.3 Elementos mínimos requeridos que acreditan irresistibilidad (Según R. Ex. N°15704/2016)

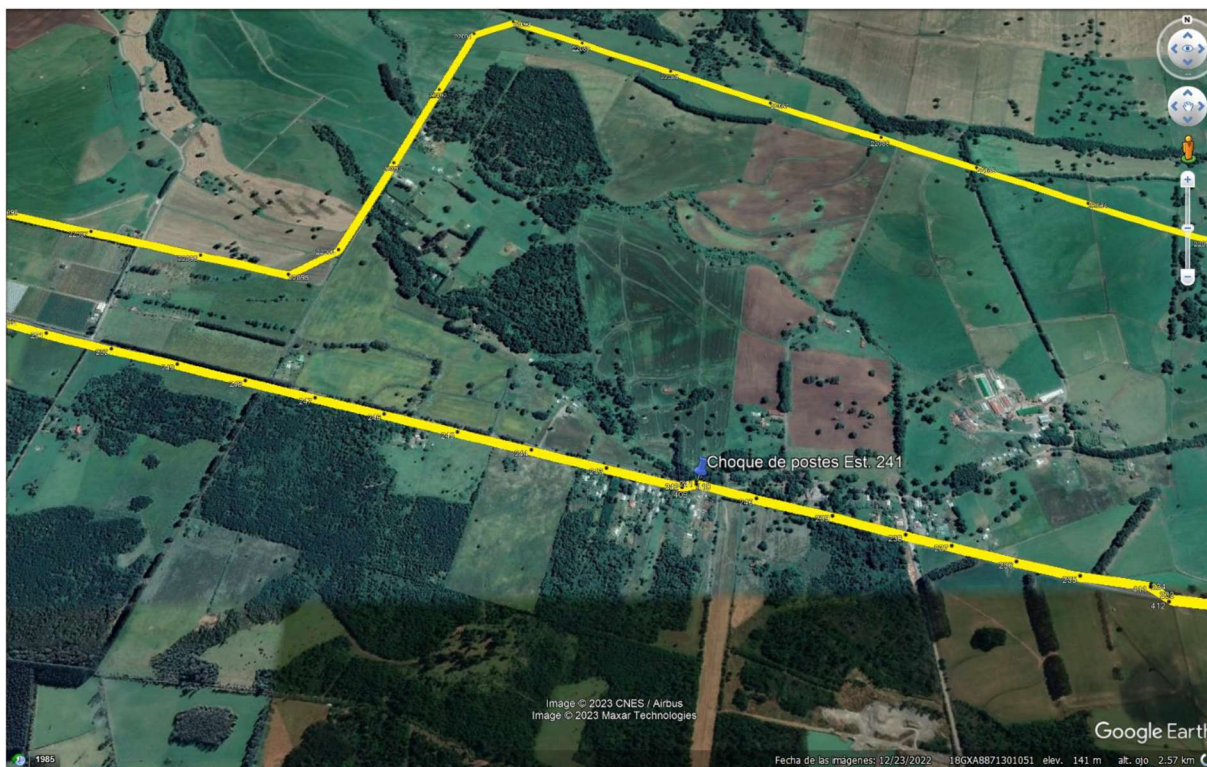
Que, atendida la misma naturaleza del evento, no es posible resistir y evitar sus efectos y consecuencias.

2.4 Elementos mínimos requeridos que acrediten exterioridad (Según R. Ex. N° 15704/2016). (Se elige según naturaleza en consecuencia con punto 2.2)

Los hechos que provocaron la falla son consecuencia de un choque de postes de la instalación eléctricas, que responden a un actuar negligente por parte de terceros, los que no dependen de la voluntad de la transmisora, y en los que ésta no tiene participación, incidencia o responsabilidad alguna

Las acreditaciones descritas en los puntos 2.2, 2.3 y 2.4 concurren en forma copulativa, y todas ellas configuran la ocurrencia de un hecho calificable como Caso Fortuito o Fuerza Mayor

3. Croquis del punto de falla



Cristian Suárez Morales
Rut: 14.405.095-9

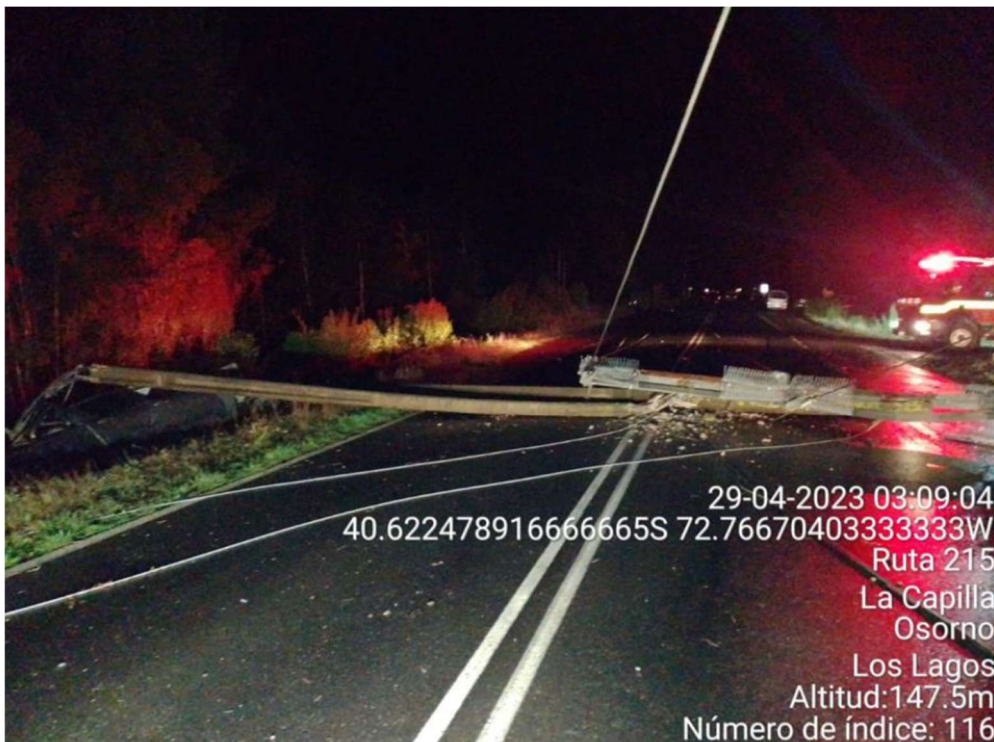
Gerente Zonal Transmisión Sur

15.2 Registro fotográfico

Fotografía N°1: Muestra estructura colapsada producto del vehículo



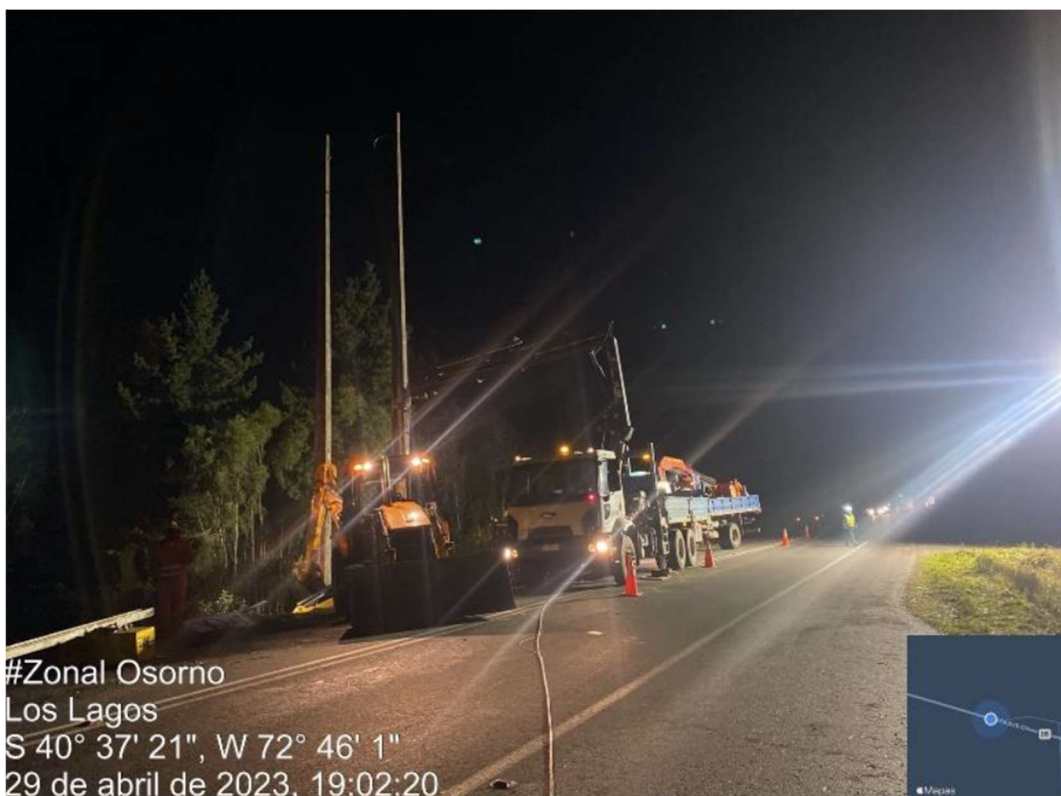
Fotografía N°2: Muestra estructura 241 sobre ruta 215



Fotografía N°3: Muestra estructura 241 colapsada producto de choque

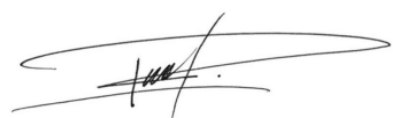


Fotografía N°4: Muestra reemplazo de estructura 241



15.3 Declaración Jurada

Ver Anexo N°2 “Declaración Jurada”

DOCUMENTO	
Informe de Atención de Emergencia	
Informe atención de falla en línea 66 kV Aihuapi – Los Negros	
Aprobado por: José Gastón Muñoz Jefe Zonal de Mantenimiento Tx Osorno	Firma: 
Revisado por: Francisco Hernández Liniero Electromecánico Tx	Firma: 
Preparado por: Edwing Rios Supervisor Eléctrico Enerpa SA	Firma: 
Revisión: Revisión: B	
Fecha: 03 de mayo de 2023	
Empresa: 	

Contenido

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2	Objetivos de los trabajos.....	3
3	Programa de Trabajos	4
3.1	Resumen Informativo.....	4
3.2	Resumen Actividades OTs.....	4
4	Descripción de faenas	4
5	Conclusión	6

1 Introducción

En el presente informe, se detallan los **trabajos** realizados de emergencia en línea eléctrica de 66 kV Aihuapi Los Negros, dado colisión de vehículo menor tipo camioneta a postación de concreto armado de 16,5 metros con estructura tipo Portal de anclaje Q5.

2 Objetivos de los trabajos

Reemplazo de estructura portal de anclaje tipo Q5 en postación de concreto armado de 16,5 metros, retiro de antiguo portal dañado y normalización de la red afectada por el accidente.

3 Observaciones

Cerca de las 03:27 del sábado 29 de abril se recibe llamada por emergencia Postación dañada por choque de vehículo menor. Personal de STS acude al sector en mismo horario para constatar daños y verificar condiciones eléctricas antes de cualquier movimiento junto con esperar labores de carabineros ligadas al accidente. Posterior a ello se coordina asistencia al lugar de los siguientes recursos:

- 1 brigada pesada
- 1 camión grúa con capacho para trabajar en altura y para mover poste de la calzada
- 1 camión grúa para traslado de postes nuevos desde SE Antillanca al sector
- 1 Máquina retroexcavadora para realizar las nuevas hoyaduras de la postación y muertos

Las labores consisten en señalar la zona de la calzada, aterrizar y asegurar la zona de trabajo en la línea eléctrica, apoyar al retiro del vehículo siniestrado, retirar postes, aislación y ferretería antiguos, realizar hoyadura de postes, instalar nuevos postes, instalar nueva aislación y ferretería, normalizar conductores y realizar posterior a esto el retiro de tierras y normalizar suministro.

4 Programa de Trabajos

4.1 Resumen Informativo

Responsables en terreno	Francisco Hernandez – Alexis Soto
Ubicación de trabajo	LAT 66 kV Aihuapi Los Negros
Jefe Zonal Mantenimiento	José Gastón Muñoz Cabezas
Número de PT	2315 / 2316
Fecha ejecución de trabajos	29-30 abril 2023
Horario de solicitud de vigencia PT	05:30 hrs. 29.04.2023
Horario de vigencia PT	05:30hrs. 29.04.2023
Horario de cancelación de PT	03:40 hrs. 30.04.2023

4.2 Resumen Actividades OTs

Plan mant.prev.	Orden	Texto breve	Denominación	Fecha	Clase de orden	INSTALACIÓN
2816	60180229	MCL_REEM E241_ATENCION FALLA	TRAMO 13	29/04/2023	ZT02	LT 66 KV AIHUAPI - LOS NEGROS
2816	60180228	MCL_REEM E241_ATENCION FALLA	TRAMO 13	29/04/2023	ZT02	LT 66 KV AIHUAPI - LOS NEGROS

5 Descripción de faenas

Los trabajos desarrollados consistieron de acuerdo al siguiente set fotográfico:

 #Zonal Osorno Los Lagos S 40° 37' 21", W 72° 46' 0" 29 de abril de 2023, 07:17:00	 #Zonal Osorno Los Lagos S 40° 37' 21", W 72° 45' 59" 29 de abril de 2023, 07:16:17
Vehículo Siniestrado que provoca daño en instalaciones electr, LAT 66 kV Aihuapi Los Negros	Vehículo Siniestrado que provoca daño en instalaciones electr, LAT 66 kV Aihuapi Los Negros

 #Zonal Osorno Los Lagos S 40° 37' 21", W 72° 45' 59" 29 de abril de 2023, 07:16:25	 #Zonal Osorno Los Lagos S 40° 37' 21", W 72° 45' 59" 29 de abril de 2023, 07:16:36
Daño en instalaciones electr, LAT 66 kV Aihuapi Los Negros, portal de Anclaje estructura C241	Daño en instalaciones electr, LAT 66 kV Aihuapi Los Negros, portal de Anclaje estructura C241
 #Zonal Osorno Los Lagos S 40° 37' 21", W 72° 45' 59" 29 de abril de 2023, 11:05:07	 #Zonal Osorno Los Lagos S 40° 37' 21", W 72° 46' 0" 29 de abril de 2023, 11:06:06
Retiro vehículo siniestrado	Retiro vehículo siniestrado



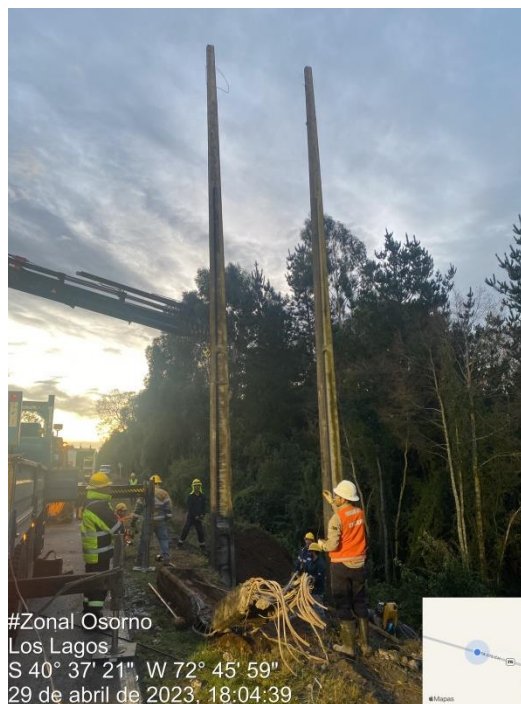
Hoyadura de poste a pulso



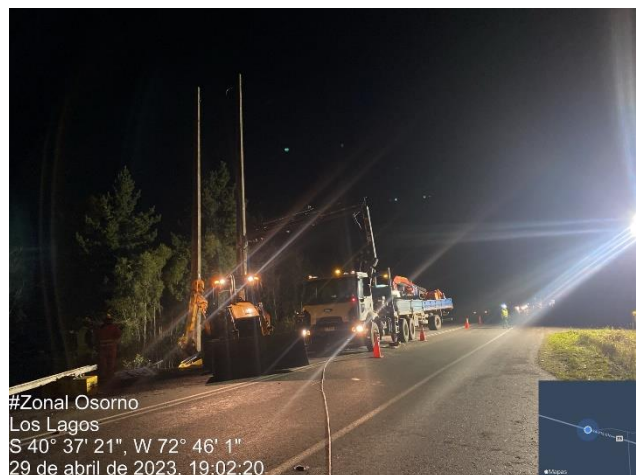
Instalación y compactación de postes nuevos



Instalación y compactación de postes nuevos



Instalación y compactación de postes nuevos



Instalación y compactación de postes nuevos



Instalación de Ferretería y normalización de conductores de AT



Normalización de conductores de AT



Estructura completa reemplazada



Estructura completa reemplazada



Estructura completa reemplazada

6 Conclusiones.

Se realiza el cambio de estructuras siniestradas debido al accidente provocado por vehículo marca Mazda, que circulaba de poniente a oriente (dirección a Entre Lagos), quien al traspasar el eje de la calzada choca a la estructura 241 de la línea de 66 kV Aihuapi – Los Negros. Debido al daño provocado y las condiciones de la ruta, fue necesario cortar una de las pistas de la ruta internacional 215, por lo que una vez retirada la camioneta de entre las estructuras siniestradas, se procede con el despeje de la zona e instalación de la nueva postación. La actividad se desarrollo de manera normal, revisando que las nuevas estructuras quedaran correctamente enterradas y vestidas con la ferretería y aislación respectiva, dejando la línea en servicio a las 03:54 hrs del 30 de abril.

DECLARACIÓN JURADA

En Osorno a 09 de mayo 2023, Yo, Alexis Eduardo Soto Naiman, Cédula de Identidad N° 16.449.366-0 en mi calidad de Ingeniero de Mantenimiento Equipos Transmisión y en representación de la empresa eléctrica Sistema de Transmisión del Sur, RUT N° 77.312.201-6., con domicilio para estos efectos en calle Bulnes N° 441 en Osorno, declaro bajo juramento lo siguiente:

La falla y/o interrupción de suministro ocurrida con fecha 29 de abril del 2023, a las 01:35 hrs, se debió a la interrupción producida por colapso de estructura de línea alta tensión de 66 kV Aihuapi – Los Negros producto de choque de camioneta que se sale de la ruta he impacta directamente con esta.

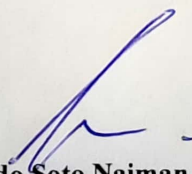
Los hechos que originaron la falla fueron los siguientes:

Producto del choque de vehículo menor en contra de estructura de alta tensión denominada estructura 241 de la línea de 66 kV Aihuapi – Los Negros, provoca que esta colapse y provoque la interrupción del suministro hacía Subestación de transmisión Los Negros.

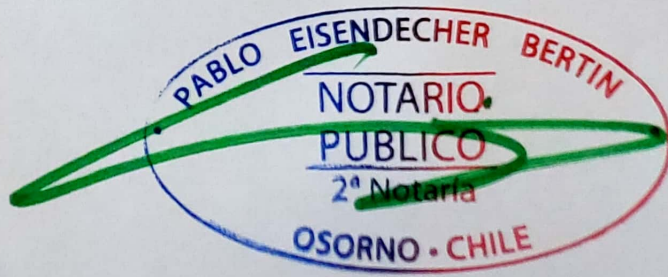
Se formula la presente declaración para ser presentada ante la Superintendencia de Electricidad y Combustibles.

Se adjunta informe de falla realizado por personal técnico y administrativo, que trabajó directamente en las reparaciones de la instalación afectada y en el restablecimiento de suministro eléctrico a causa de la falla.

Pues bien, en este contexto, la transmisora cuenta con los antecedentes fundados y diversos medios de prueba que dan cuenta de la imprevisibilidad e irresistibilidad de los hechos acontecidos, atribuidos o denominados como, "fuerzo mayor o caso fortuito".


Alexis Eduardo Soto Naiman
16.449.366-0

Ingeniero de Mantenimiento Equipos de Transmisión



ACC

Password: ? *****

21/21N 52B2 S1
SE AIHUAPI

Date: 04/29/23

Time: 09:52:31.519

Level 1

=>HIS

21/21N 52B2 S1
SE AIHUAPI

Date: 04/29/23

Time: 09:52:35.261

#	DATE	TIME	EVENT	LOCAT	CURR	FREQ	GRP	SHOT	TARGETS
1	04/29/23	05:39:17.600	ABG T	16.49	1353	49.94	1	1	TRIP SOTF
2	04/29/23	05:35:29.780	ABG T	16.47	1315	50.02	1	1	TRIP SOTF
3	04/29/23	05:35:27.297	CG T	15.27	961	50.03	1	0	TRIP TIME 51
4	03/06/23	16:59:27.886	ER	\$\$\$\$\$\$\$	14	50.02	1	1	
5	03/02/23	10:17:34.081	ER	\$\$\$\$\$\$\$	31	50.12	1	1	
6	02/28/23	14:22:16.181	ER	\$\$\$\$\$\$\$	25	49.95	1	1	
7	02/18/23	05:30:17.388	ER	\$\$\$\$\$\$\$	16	50.09	1	1	
8	02/09/23	01:15:09.782	ER	\$\$\$\$\$\$\$	31	50.13	1	1	
9	02/03/23	21:19:58.249	ER	\$\$\$\$\$\$\$	15	49.96	1	1	
10	01/24/23	11:11:50.786	ER	\$\$\$\$\$\$\$	13	49.86	1	1	
11	01/24/23	02:43:35.624	ER	\$\$\$\$\$\$\$	19	50.06	1	1	
12	01/24/23	02:09:44.126	ER	\$\$\$\$\$\$\$	14	49.93	1	1	
13	01/02/23	10:00:38.004	ER	\$\$\$\$\$\$\$	22	49.91	1	1	

=>SER 1000

21/21N 52B2 S1
SE AIHUAPI

Date: 04/29/23

Time: 09:52:47.166

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CID=D6A4

#	Date	Time	Element	State
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999	06/28/20	02:21:31.269	79RS	Asserted
998	07/08/20	07:13:32.515	LOP	Asserted
997	07/08/20	07:13:32.515	79LO	Asserted
996	07/08/20	07:13:32.515	79RS	Deasserted
995	07/08/20	07:13:32.789	LOP	Deasserted
994	07/08/20	07:13:33.988	79LO	Deasserted
993	07/08/20	07:13:33.988	79RS	Asserted
992	07/08/20	14:13:03.495	LOP	Asserted
991	07/08/20	14:13:03.495	79LO	Asserted
990	07/08/20	14:13:03.495	79RS	Deasserted
989	07/08/20	14:13:03.769	LOP	Deasserted
988	07/08/20	14:13:05.003	79LO	Deasserted
987	07/08/20	14:13:05.003	79RS	Asserted
986	07/08/20	14:13:06.143	LOP	Asserted
985	07/08/20	14:13:06.143	79LO	Asserted
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983	07/08/20	14:30:08.890	LOP	Deasserted
982	07/08/20	14:30:10.090	79LO	Deasserted
981	07/08/20	14:30:10.090	79RS	Asserted
980	07/08/20	14:30:32.489	LOP	Asserted
979	07/08/20	14:30:32.489	79LO	Asserted
978	07/08/20	14:30:32.489	79RS	Deasserted
977	07/08/20	14:30:33.029	LOP	Deasserted
976	07/08/20	14:30:34.230	79LO	Deasserted
975	07/08/20	14:30:34.230	79RS	Asserted
974	07/08/20	14:33:00.039	LOP	Asserted
973	07/08/20	14:33:00.039	79LO	Asserted
972	07/08/20	14:33:00.039	79RS	Deasserted
971	07/08/20	14:33:00.594	LOP	Deasserted
970	07/08/20	14:33:01.795	79LO	Deasserted
969	07/08/20	14:33:01.795	79RS	Asserted
968	07/09/20	10:44:51.550	51G	Asserted
967	07/09/20	10:44:51.570	Z2G	Asserted
966	07/09/20	10:44:51.800	51GT	Asserted
965	07/09/20	10:44:51.800	TRIP	Asserted
964	07/09/20	10:44:51.800	OUT101	Asserted
963	07/09/20	10:44:51.800	OUT102	Asserted
962	07/09/20	10:44:51.800	79CY	Asserted
961	07/09/20	10:44:51.800	79RS	Deasserted
960	07/09/20	10:44:51.830	IN101	Deasserted
959	07/09/20	10:44:51.850	Z2G	Deasserted
958	07/09/20	10:44:51.870	51G	Deasserted
957	07/09/20	10:44:51.890	51GT	Deasserted
956	07/09/20	10:44:51.980	TRIP	Deasserted
955	07/09/20	10:44:51.980	OUT101	Deasserted
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953	07/09/20	10:44:53.974	CLOSE	Asserted
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947	07/09/20	10:44:56.608	Z2G	Asserted
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938	07/09/20	10:44:56.908	51G	Deasserted
937	07/09/20	10:44:56.928	51GT	Deasserted
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935	07/09/20	10:44:57.018	OUT101	Deasserted
934	07/09/20	10:44:57.018	OUT102	Deasserted
933	07/09/20	13:05:21.716	IN102	Deasserted
932	07/09/20	13:06:03.351	IN101	Asserted
931	07/09/20	13:06:33.344	79LO	Deasserted
930	07/09/20	13:06:33.344	79RS	Asserted

929	07/09/20	13:19:25.650	IN102	Asserted
928	07/17/20	10:57:11.921	IN102	Deasserted
927	07/17/20	18:09:34.564	IN102	Asserted
926	07/18/20	01:14:10.219	LOP	Asserted
925	07/18/20	01:14:10.219	79LO	Asserted
924	07/18/20	01:14:10.219	79RS	Deasserted
923	07/18/20	01:14:10.478	LOP	Deasserted
922	07/18/20	01:14:11.678	79LO	Deasserted
921	07/18/20	01:14:11.678	79RS	Asserted
920	07/18/20	01:22:10.792	LOP	Asserted
919	07/18/20	01:22:10.792	79LO	Asserted
918	07/18/20	01:22:10.792	79RS	Deasserted
917	07/18/20	01:22:11.052	LOP	Deasserted
916	07/18/20	01:22:12.250	79LO	Deasserted
915	07/18/20	01:22:12.250	79RS	Asserted
914	07/18/20	01:34:43.215	LOP	Asserted
913	07/18/20	01:34:43.215	79LO	Asserted
912	07/18/20	01:34:43.215	79RS	Deasserted
911	07/18/20	01:34:43.494	LOP	Deasserted
910	07/18/20	01:34:44.692	79LO	Deasserted
909	07/18/20	01:34:44.692	79RS	Asserted
908	07/18/20	02:04:30.048	51G	Asserted
907	07/18/20	02:04:30.368	51GT	Asserted
906	07/18/20	02:04:30.368	TRIP	Asserted
905	07/18/20	02:04:30.368	OUT101	Asserted
904	07/18/20	02:04:30.368	OUT102	Asserted
903	07/18/20	02:04:30.368	79CY	Asserted
902	07/18/20	02:04:30.368	79RS	Deasserted
901	07/18/20	02:04:30.398	IN101	Deasserted
900	07/18/20	02:04:30.428	51G	Deasserted
899	07/18/20	02:04:30.448	51GT	Deasserted
898	07/18/20	02:04:30.548	TRIP	Deasserted
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896	07/18/20	02:04:30.548	OUT102	Deasserted
895	07/18/20	02:04:32.543	CLOSE	Asserted
894	07/18/20	02:04:32.543	OUT105	Asserted
893	07/18/20	02:04:32.618	CLOSE	Deasserted
892	07/18/20	02:04:32.618	IN101	Asserted
891	07/18/20	02:04:32.618	OUT105	Deasserted
890	07/18/20	02:04:32.838	51G	Asserted
889	07/18/20	02:04:33.158	51GT	Asserted
888	07/18/20	02:04:33.158	TRIP	Asserted
887	07/18/20	02:04:33.158	OUT101	Asserted
886	07/18/20	02:04:33.158	OUT102	Asserted
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881	07/18/20	02:04:33.238	51GT	Deasserted
880	07/18/20	02:04:33.338	TRIP	Deasserted
879	07/18/20	02:04:33.338	OUT101	Deasserted
878	07/18/20	02:04:33.338	OUT102	Deasserted
877	07/18/20	09:38:41.454	IN102	Deasserted
876	07/18/20	12:58:28.054	IN101	Asserted

875	07/18/20	12:58:58.081	79LO	Deasserted
874	07/18/20	12:58:58.081	79RS	Asserted
873	07/18/20	14:18:40.853	IN102	Asserted
872	07/20/20	09:37:25.528	IN102	Deasserted
871	07/20/20	10:00:15.149	LOP	Asserted
870	07/20/20	10:00:15.149	79LO	Asserted
869	07/20/20	10:00:15.149	79RS	Deasserted
868	07/20/20	10:00:15.409	LOP	Deasserted
867	07/20/20	10:00:16.425	LOP	Asserted
866	07/20/20	10:30:45.578	IN101	Deasserted
865	07/20/20	11:13:05.496	LOP	Deasserted
864	07/20/20	11:13:54.445	IN101	Asserted
863	07/20/20	11:14:24.359	79LO	Deasserted
862	07/20/20	11:14:24.359	79RS	Asserted
861	07/20/20	19:30:46.618	IN102	Asserted
860	07/21/20	09:35:55.133	IN102	Deasserted
859	07/21/20	18:50:34.611	IN102	Asserted
858	07/22/20	09:27:25.549	IN102	Deasserted
857	07/22/20	18:48:22.623	IN102	Asserted
856	07/23/20	09:36:11.175	IN102	Deasserted
855	07/23/20	18:06:29.065	IN102	Asserted
854	07/24/20	09:31:07.116	IN102	Deasserted
853	07/24/20	18:44:31.437	IN102	Asserted
852	07/27/20	12:27:32.793	IN102	Deasserted
851	07/27/20	18:53:08.167	IN102	Asserted
850	07/28/20	10:08:00.709	IN102	Deasserted
849	07/28/20	18:29:26.533	IN102	Asserted
848	07/29/20	09:24:51.108	IN102	Deasserted
847	07/29/20	18:42:20.948	IN102	Asserted
846	07/30/20	09:41:36.700	IN102	Deasserted
845	07/30/20	18:33:23.296	IN102	Asserted
844	07/31/20	10:23:43.849	IN102	Deasserted
843	07/31/20	18:31:36.894	IN102	Asserted
842	08/03/20	10:43:27.948	IN102	Deasserted
841	08/03/20	18:49:39.413	IN102	Asserted
840	08/04/20	09:47:31.149	IN102	Deasserted
839	08/04/20	18:39:20.247	IN102	Asserted
838	08/05/20	09:35:21.538	IN102	Deasserted
837	08/05/20	19:36:30.679	IN102	Asserted
836	08/06/20	10:52:32.814	IN102	Deasserted
835	08/06/20	18:44:42.640	IN102	Asserted
834	08/07/20	10:54:19.998	IN102	Deasserted
833	08/07/20	11:06:39.195	IN102	Asserted
832	08/07/20	11:41:59.236	IN102	Deasserted
831	08/07/20	14:06:00.898	IN102	Asserted
830	08/10/20	10:48:07.194	IN102	Deasserted
829	08/10/20	17:51:33.042	IN102	Asserted
828	08/11/20	10:49:48.779	IN102	Deasserted
827	08/11/20	17:38:56.194	IN102	Asserted
826	08/12/20	10:34:11.199	IN102	Deasserted
825	08/12/20	18:06:37.041	IN102	Asserted
824	08/13/20	10:52:16.023	IN102	Deasserted
823	08/13/20	18:19:32.263	IN102	Asserted
822	08/20/20	10:57:26.366	IN102	Deasserted

821	08/20/20	17:56:23.338	IN102	Asserted
820	08/27/20	09:35:05.655	LOP	Asserted
819	08/27/20	09:35:05.655	79LO	Asserted
818	08/27/20	09:35:05.655	79RS	Deasserted
817	08/27/20	09:35:05.905	LOP	Deasserted
816	08/27/20	09:35:07.107	79LO	Deasserted
815	08/27/20	09:35:07.107	79RS	Asserted
814	08/28/20	10:32:46.750	LOP	Asserted
813	08/28/20	10:32:46.750	79LO	Asserted
812	08/28/20	10:32:46.750	79RS	Deasserted
811	08/28/20	10:32:47.066	LOP	Deasserted
810	08/28/20	10:32:48.267	79LO	Deasserted
809	08/28/20	10:32:48.267	79RS	Asserted
808	09/01/20	12:08:44.925	IN102	Deasserted
807	09/01/20	17:43:07.526	IN102	Asserted
806	09/02/20	11:13:59.362	IN102	Deasserted
805	09/02/20	18:00:31.606	IN102	Asserted
804	09/03/20	11:17:15.436	IN102	Deasserted
803	09/03/20	18:07:06.807	IN102	Asserted
802	09/04/20	10:27:27.384	IN102	Deasserted
801	09/04/20	14:13:46.701	IN102	Asserted
800	09/07/20	10:36:13.888	IN102	Deasserted
799	09/07/20	17:11:14.137	IN102	Asserted
798	09/08/20	10:08:01.155	IN102	Deasserted
797	09/08/20	17:11:46.970	IN102	Asserted
796	09/09/20	09:45:17.937	IN102	Deasserted
795	09/09/20	17:10:10.210	IN102	Asserted
794	09/10/20	09:51:10.777	IN102	Deasserted
793	09/10/20	17:04:47.850	IN102	Asserted
792	09/11/20	09:39:34.028	IN102	Deasserted
791	09/11/20	13:09:27.708	IN102	Asserted
790	09/14/20	10:06:54.918	IN102	Deasserted
789	09/14/20	16:41:12.725	IN102	Asserted
788	09/22/20	14:14:47.363	IN102	Deasserted
787	09/22/20	16:43:02.654	IN102	Asserted
786	09/23/20	09:54:11.265	IN102	Deasserted
785	09/23/20	16:52:50.744	IN102	Asserted
784	09/24/20	10:10:58.526	IN102	Deasserted
783	09/24/20	17:05:48.378	IN102	Asserted
782	09/25/20	09:35:06.574	IN102	Deasserted
781	09/25/20	13:03:33.889	IN102	Asserted
780	09/28/20	09:39:24.369	IN102	Deasserted
779	09/28/20	17:03:53.439	IN102	Asserted
778	09/29/20	10:52:26.091	IN102	Deasserted
777	09/29/20	17:00:16.718	IN102	Asserted
776	09/30/20	09:35:42.105	IN102	Deasserted
775	09/30/20	17:09:00.736	IN102	Asserted
774	10/13/20	10:07:42.766	IN102	Deasserted
773	10/13/20	15:31:30.153	IN102	Asserted
772	11/03/20	17:38:15.554	LOP	Asserted
771	11/03/20	17:38:15.554	79LO	Asserted
770	11/03/20	17:38:15.554	79RS	Deasserted
769	11/03/20	17:38:15.859	LOP	Deasserted
768	11/03/20	17:38:16.064	LOP	Asserted

767	11/03/20	17:38:16.458	LOP	Deasserted
766	11/03/20	17:38:16.593	LOP	Asserted
765	11/03/20	17:38:16.878	LOP	Deasserted
764	11/03/20	17:38:18.078	79LO	Deasserted
763	11/03/20	17:38:18.078	79RS	Asserted
762	11/18/20	13:50:21.379	IN102	Deasserted
761	11/18/20	17:53:29.569	IN102	Asserted
760	11/20/20	04:53:29.896	LOP	Asserted
759	11/20/20	04:53:29.896	79LO	Asserted
758	11/20/20	04:53:29.896	79RS	Deasserted
757	11/20/20	04:53:30.111	LOP	Deasserted
756	11/20/20	04:53:31.311	79LO	Deasserted
755	11/20/20	04:53:31.311	79RS	Asserted
754	11/22/20	14:28:56.950	LOP	Asserted
753	11/22/20	14:28:56.950	79LO	Asserted
752	11/22/20	14:28:56.950	79RS	Deasserted
751	11/22/20	14:28:57.200	LOP	Deasserted
750	11/22/20	14:28:58.401	79LO	Deasserted
749	11/22/20	14:28:58.401	79RS	Asserted
748	12/16/20	13:21:44.670	IN102	Deasserted
747	12/16/20	19:45:20.064	IN102	Asserted
746	12/17/20	13:44:02.353	IN102	Deasserted
745	12/17/20	19:30:24.944	IN102	Asserted
744	12/18/20	13:02:54.446	IN102	Deasserted
743	12/18/20	16:01:44.143	IN102	Asserted
742	12/21/20	13:07:14.678	IN102	Deasserted
741	12/21/20	19:46:17.308	IN102	Asserted
740	12/22/20	13:20:34.033	IN102	Deasserted
739	12/22/20	19:50:27.041	IN102	Asserted
738	12/23/20	13:21:10.913	IN102	Deasserted
737	12/23/20	19:49:18.324	IN102	Asserted
736	12/24/20	08:52:58.607	LOP	Asserted
735	12/24/20	08:52:58.607	79LO	Asserted
734	12/24/20	08:52:58.607	79RS	Deasserted
733	12/24/20	08:52:58.852	LOP	Deasserted
732	12/24/20	08:53:00.051	79LO	Deasserted
731	12/24/20	08:53:00.051	79RS	Asserted
730	12/24/20	12:47:26.206	IN102	Deasserted
729	12/24/20	15:56:04.722	IN102	Asserted
728	12/28/20	12:29:37.049	IN102	Deasserted
727	12/28/20	19:54:35.717	IN102	Asserted
726	12/29/20	12:29:46.756	IN102	Deasserted
725	12/29/20	19:47:19.007	IN102	Asserted
724	12/30/20	12:30:46.031	IN102	Deasserted
723	12/30/20	19:54:51.139	IN102	Asserted
722	12/31/20	12:17:35.748	IN102	Deasserted
721	12/31/20	15:36:51.818	IN102	Asserted
720	01/07/21	08:57:11.092	LOP	Asserted
719	01/07/21	08:57:11.092	79LO	Asserted
718	01/07/21	08:57:11.092	79RS	Deasserted
717	01/07/21	08:57:11.437	LOP	Deasserted
716	01/07/21	08:57:12.636	79LO	Deasserted
715	01/07/21	08:57:12.636	79RS	Asserted
714	02/03/21	13:34:04.238	51G	Asserted

713	02/03/21	13:34:06.029	51G	Deasserted
712	02/26/21	17:49:46.611	LOP	Asserted
711	02/26/21	17:49:46.611	79LO	Asserted
710	02/26/21	17:49:46.611	79RS	Deasserted
709	02/26/21	17:49:46.756	LOP	Deasserted
708	02/26/21	17:49:47.956	79LO	Deasserted
707	02/26/21	17:49:47.956	79RS	Asserted
706	03/08/21	14:36:02.560	LOP	Asserted
705	03/08/21	14:36:02.560	79LO	Asserted
704	03/08/21	14:36:02.560	79RS	Deasserted
703	03/08/21	14:36:02.640	LOP	Deasserted
702	03/08/21	14:36:03.676	LOP	Asserted
701	03/08/21	14:36:03.767	LOP	Deasserted
700	03/08/21	14:36:04.968	79LO	Deasserted
699	03/08/21	14:36:04.968	79RS	Asserted
698	03/17/21	10:34:10.326	LOP	Asserted
697	03/17/21	10:34:10.326	79LO	Asserted
696	03/17/21	10:34:10.326	79RS	Deasserted
695	03/17/21	10:34:10.566	LOP	Deasserted
694	03/17/21	10:34:11.765	79LO	Deasserted
693	03/17/21	10:34:11.765	79RS	Asserted
692	03/25/21	11:27:25.935	IN102	Deasserted
691	03/25/21	11:28:12.373	IN101	Deasserted
690	03/25/21	11:28:12.384	79LO	Asserted
689	03/25/21	11:28:12.384	79RS	Deasserted
688	03/25/21	18:18:54.261	IN101	Asserted
687	03/25/21	18:19:24.263	79LO	Deasserted
686	03/25/21	18:19:24.263	79RS	Asserted
685	03/25/21	18:40:34.177	IN102	Asserted
684	04/25/21	13:09:39.886	LOP	Asserted
683	04/25/21	13:09:39.886	79LO	Asserted
682	04/25/21	13:09:39.886	79RS	Deasserted
681	04/25/21	13:11:48.432	IN101	Deasserted
680	04/25/21	23:58:48.369	LOP	Deasserted
679	04/25/21	23:59:06.471	IN101	Asserted
678	04/25/21	23:59:36.443	79LO	Deasserted
677	04/25/21	23:59:36.443	79RS	Asserted
676	05/27/21	16:50:51.546	LOP	Asserted
675	05/27/21	16:50:51.546	79LO	Asserted
674	05/27/21	16:50:51.546	79RS	Deasserted
673	05/27/21	16:50:52.251	LOP	Deasserted
672	05/27/21	16:50:53.451	79LO	Deasserted
671	05/27/21	16:50:53.451	79RS	Asserted
670	05/27/21	19:04:03.845	LOP	Asserted
669	05/27/21	19:04:03.845	79LO	Asserted
668	05/27/21	19:04:03.845	79RS	Deasserted
667	05/27/21	19:04:04.120	LOP	Deasserted
666	05/27/21	19:04:05.319	79LO	Deasserted
665	05/27/21	19:04:05.319	79RS	Asserted
664	05/27/21	19:04:45.877	LOP	Asserted
663	05/27/21	19:04:45.877	79LO	Asserted
662	05/27/21	19:04:45.877	79RS	Deasserted
661	05/27/21	19:04:46.142	LOP	Deasserted
660	05/27/21	19:04:47.343	79LO	Deasserted

659	05/27/21	19:04:47.343	79RS	Asserted
658	05/27/21	19:06:20.407	LOP	Asserted
657	05/27/21	19:06:20.407	79LO	Asserted
656	05/27/21	19:06:20.407	79RS	Deasserted
655	05/27/21	19:06:20.672	LOP	Deasserted
654	05/27/21	19:06:21.869	79LO	Deasserted
653	05/27/21	19:06:21.869	79RS	Asserted
652	05/27/21	19:08:30.379	LOP	Asserted
651	05/27/21	19:08:30.379	79LO	Asserted
650	05/27/21	19:08:30.379	79RS	Deasserted
649	05/27/21	19:08:30.639	LOP	Deasserted
648	05/27/21	19:08:31.836	79LO	Deasserted
647	05/27/21	19:08:31.836	79RS	Asserted
646	06/08/21	15:52:20.785	IN102	Deasserted
645	06/08/21	16:01:39.166	IN102	Asserted
644	07/01/21	16:50:30.497	IN102	Deasserted
643	07/01/21	18:13:08.939	IN102	Asserted
642	07/05/21	13:36:39.216	IN102	Deasserted
641	07/05/21	21:47:54.697	IN102	Asserted
640	07/06/21	12:47:07.240	IN102	Deasserted
639	07/06/21	21:49:20.332	IN102	Asserted
638	07/07/21	19:29:39.520	IN102	Deasserted
637	07/07/21	21:38:41.127	IN102	Asserted
636	07/08/21	13:03:33.722	IN102	Deasserted
635	07/08/21	21:38:53.120	IN102	Asserted
634	07/08/21	21:40:41.152	IN102	Deasserted
633	07/08/21	21:56:39.556	IN102	Asserted
632	07/09/21	13:10:00.055	IN102	Deasserted
631	07/09/21	21:01:19.471	IN102	Asserted
630	08/11/21	19:50:13.054	LOP	Asserted
629	08/11/21	19:50:13.054	79LO	Asserted
628	08/11/21	19:50:13.054	79RS	Deasserted
627	08/11/21	19:59:41.847	LOP	Deasserted
626	08/11/21	19:59:43.045	79LO	Deasserted
625	08/11/21	19:59:43.045	79RS	Asserted
624	08/14/21	13:58:03.892	LOP	Asserted
623	08/14/21	13:58:03.892	79LO	Asserted
622	08/14/21	13:58:03.892	79RS	Deasserted
621	08/14/21	13:58:04.987	LOP	Deasserted
620	08/14/21	13:58:05.047	LOP	Asserted
619	08/14/21	13:58:05.331	LOP	Deasserted
618	08/14/21	13:58:06.598	79LO	Deasserted
617	08/14/21	13:58:06.598	79RS	Asserted
616	08/14/21	13:58:10.769	LOP	Asserted
615	08/14/21	13:58:10.769	79LO	Asserted
614	08/14/21	13:58:10.769	79RS	Deasserted
613	08/14/21	14:34:21.477	LOP	Deasserted
612	08/14/21	14:34:22.677	79LO	Deasserted
611	08/14/21	14:34:22.677	79RS	Asserted
610	08/14/21	14:45:00.186	LOP	Asserted
609	08/14/21	14:45:00.186	79LO	Asserted
608	08/14/21	14:45:00.186	79RS	Deasserted
607	08/14/21	14:45:00.416	LOP	Deasserted
606	08/14/21	14:45:01.619	79LO	Deasserted

605	08/14/21	14:45:01.619	79RS	Asserted
604	08/14/21	14:51:35.042	LOP	Asserted
603	08/14/21	14:51:35.042	79LO	Asserted
602	08/14/21	14:51:35.042	79RS	Deasserted
601	08/14/21	14:51:35.262	LOP	Deasserted
600	08/14/21	14:51:36.462	79LO	Deasserted
599	08/14/21	14:51:36.462	79RS	Asserted
598	08/14/21	14:54:21.955	LOP	Asserted
597	08/14/21	14:54:21.955	79LO	Asserted
596	08/14/21	14:54:21.955	79RS	Deasserted
595	08/14/21	14:54:22.165	LOP	Deasserted
594	08/14/21	14:54:23.364	79LO	Deasserted
593	08/14/21	14:54:23.364	79RS	Asserted
592	08/14/21	14:55:41.159	LOP	Asserted
591	08/14/21	14:55:41.159	79LO	Asserted
590	08/14/21	14:55:41.159	79RS	Deasserted
589	08/14/21	14:55:41.369	LOP	Deasserted
588	08/14/21	14:55:42.570	79LO	Deasserted
587	08/14/21	14:55:42.570	79RS	Asserted
586	08/16/21	07:11:09.464	LOP	Asserted
585	08/16/21	07:11:09.464	79LO	Asserted
584	08/16/21	07:11:09.464	79RS	Deasserted
583	08/16/21	07:11:09.669	LOP	Deasserted
582	08/16/21	07:11:10.868	79LO	Deasserted
581	08/16/21	07:11:10.868	79RS	Asserted
580	08/26/21	22:40:59.583	LOP	Asserted
579	08/26/21	22:40:59.583	79LO	Asserted
578	08/26/21	22:40:59.583	79RS	Deasserted
577	08/26/21	22:40:59.928	LOP	Deasserted
576	08/26/21	22:41:01.129	79LO	Deasserted
575	08/26/21	22:41:01.129	79RS	Asserted
574	09/13/21	19:07:59.069	IN102	Deasserted
573	09/13/21	22:27:33.542	IN102	Asserted
572	09/21/21	20:40:54.932	LOP	Asserted
571	09/21/21	20:40:54.932	79LO	Asserted
570	09/21/21	20:40:54.932	79RS	Deasserted
569	09/21/21	20:40:55.247	LOP	Deasserted
568	09/21/21	20:40:56.443	79LO	Deasserted
567	09/21/21	20:40:56.443	79RS	Asserted
566	09/21/21	20:41:01.137	LOP	Asserted
565	09/21/21	20:41:01.137	79LO	Asserted
564	09/21/21	20:41:01.137	79RS	Deasserted
563	09/21/21	20:41:01.461	LOP	Deasserted
562	09/21/21	20:41:02.659	79LO	Deasserted
561	09/21/21	20:41:02.659	79RS	Asserted
560	09/21/21	20:53:29.798	LOP	Asserted
559	09/21/21	20:53:29.798	79LO	Asserted
558	09/21/21	20:53:29.798	79RS	Deasserted
557	09/21/21	20:53:30.118	LOP	Deasserted
556	09/21/21	20:53:31.318	79LO	Deasserted
555	09/21/21	20:53:31.318	79RS	Asserted
554	10/20/21	07:40:17.218	LOP	Asserted
553	10/20/21	07:40:17.218	79LO	Asserted
552	10/20/21	07:40:17.218	79RS	Deasserted

551	10/20/21	07:40:17.633	LOP	Deasserted
550	10/20/21	07:40:18.833	79LO	Deasserted
549	10/20/21	07:40:18.833	79RS	Asserted
548	10/20/21	07:49:40.918	LOP	Asserted
547	10/20/21	07:49:40.918	79LO	Asserted
546	10/20/21	07:49:40.918	79RS	Deasserted
545	10/20/21	07:49:42.302	LOP	Deasserted
544	10/20/21	07:49:43.502	79LO	Deasserted
543	10/20/21	07:49:43.502	79RS	Asserted
542	10/20/21	11:57:57.903	LOP	Asserted
541	10/20/21	11:57:57.903	79LO	Asserted
540	10/20/21	11:57:57.903	79RS	Deasserted
539	10/20/21	11:57:59.308	LOP	Deasserted
538	10/20/21	11:58:00.508	79LO	Deasserted
537	10/20/21	11:58:00.508	79RS	Asserted
536	11/08/21	13:28:05.231	IN102	Deasserted
535	11/08/21	20:19:03.112	IN102	Asserted
534	11/09/21	13:14:09.334	IN102	Deasserted
533	11/09/21	20:20:34.409	IN102	Asserted
532	11/10/21	11:38:06.214	IN102	Deasserted
531	11/10/21	20:22:58.496	IN102	Asserted
530	11/12/21	13:07:33.646	IN102	Deasserted
529	11/12/21	20:10:41.947	IN102	Asserted
528	11/15/21	15:03:49.197	IN102	Deasserted
527	11/15/21	20:18:24.595	IN102	Asserted
526	11/18/21	12:00:30.135	IN102	Deasserted
525	11/18/21	20:19:55.249	IN102	Asserted
524	11/19/21	11:38:46.233	IN102	Deasserted
523	11/19/21	20:20:16.935	IN102	Asserted
522	11/22/21	11:34:55.364	IN102	Deasserted
521	11/22/21	20:29:10.841	IN102	Asserted
520	11/23/21	11:43:49.820	IN102	Deasserted
519	11/23/21	20:00:51.791	IN102	Asserted
518	11/24/21	11:40:23.546	IN102	Deasserted
517	11/24/21	20:13:31.091	IN102	Asserted
516	12/03/21	17:21:31.771	IN102	Deasserted
515	12/03/21	20:11:59.932	IN102	Asserted
514	12/07/21	07:52:51.561	LOP	Asserted
513	12/07/21	07:52:51.561	79LO	Asserted
512	12/07/21	07:52:51.561	79RS	Deasserted
511	12/07/21	07:52:51.791	LOP	Deasserted
510	12/07/21	07:52:52.991	79LO	Deasserted
509	12/07/21	07:52:52.991	79RS	Asserted
508	12/07/21	16:28:24.301	LOP	Asserted
507	12/07/21	16:28:24.301	79LO	Asserted
506	12/07/21	16:28:24.301	79RS	Deasserted
505	12/07/21	16:28:24.555	LOP	Deasserted
504	12/07/21	16:28:25.752	79LO	Deasserted
503	12/07/21	16:28:25.752	79RS	Asserted
502	12/07/21	17:43:20.242	IN102	Deasserted
501	12/07/21	19:07:55.499	IN102	Asserted
500	12/09/21	17:18:54.882	IN102	Deasserted
499	12/09/21	20:50:42.947	IN102	Asserted
498	12/15/21	14:32:07.311	IN102	Deasserted

497	12/15/21	20:18:13.119	IN102	Asserted
496	12/16/21	12:13:52.884	IN102	Deasserted
495	12/16/21	19:58:42.768	IN102	Asserted
494	01/13/22	17:30:15.146	IN102	Deasserted
493	01/13/22	20:27:09.690	IN102	Asserted
492	01/14/22	11:54:43.849	IN102	Deasserted
491	01/14/22	16:47:33.621	IN102	Asserted
490	01/17/22	11:53:19.314	IN102	Deasserted
489	01/17/22	20:28:23.624	IN102	Asserted
488	01/18/22	11:40:05.000	IN102	Deasserted
487	01/18/22	20:18:44.522	IN102	Asserted
486	01/19/22	05:34:07.797	LOP	Asserted
485	01/19/22	05:34:07.797	79LO	Asserted
484	01/19/22	05:34:07.797	79RS	Deasserted
483	01/19/22	05:34:07.867	LOP	Deasserted
482	01/19/22	05:34:09.068	79LO	Deasserted
481	01/19/22	05:34:09.068	79RS	Asserted
480	01/19/22	05:47:10.655	LOP	Asserted
479	01/19/22	05:47:10.655	79LO	Asserted
478	01/19/22	05:47:10.655	79RS	Deasserted
477	01/19/22	05:47:10.866	LOP	Deasserted
476	01/19/22	05:47:12.067	79LO	Deasserted
475	01/19/22	05:47:12.067	79RS	Asserted
474	01/19/22	11:49:06.701	IN102	Deasserted
473	01/19/22	20:11:43.005	IN102	Asserted
472	01/21/22	11:48:25.285	IN102	Deasserted
471	01/21/22	16:47:31.904	IN102	Asserted
470	01/30/22	09:36:58.087	LOP	Asserted
469	01/30/22	09:36:58.087	79LO	Asserted
468	01/30/22	09:36:58.087	79RS	Deasserted
467	01/30/22	09:36:58.423	LOP	Deasserted
466	01/30/22	09:36:59.625	79LO	Deasserted
465	01/30/22	09:36:59.625	79RS	Asserted
464	02/01/22	14:26:32.383	LOP	Asserted
463	02/01/22	14:26:32.383	79LO	Asserted
462	02/01/22	14:26:32.383	79RS	Deasserted
461	02/01/22	14:26:32.612	LOP	Deasserted
460	02/01/22	14:26:33.810	79LO	Deasserted
459	02/01/22	14:26:33.810	79RS	Asserted
458	02/13/22	01:05:36.550	LOP	Asserted
457	02/13/22	01:05:36.550	79LO	Asserted
456	02/13/22	01:05:36.550	79RS	Deasserted
455	02/13/22	01:05:36.754	LOP	Deasserted
454	02/13/22	01:05:37.447	LOP	Asserted
453	02/13/22	01:05:37.652	LOP	Deasserted
452	02/13/22	01:05:38.850	79LO	Deasserted
451	02/13/22	01:05:38.850	79RS	Asserted
450	02/13/22	01:06:58.290	LOP	Asserted
449	02/13/22	01:06:58.290	79LO	Asserted
448	02/13/22	01:06:58.290	79RS	Deasserted
447	02/13/22	01:06:58.495	LOP	Deasserted
446	02/13/22	01:06:59.692	79LO	Deasserted
445	02/13/22	01:06:59.692	79RS	Asserted
444	02/13/22	01:07:10.073	LOP	Asserted

443	02/13/22	01:07:10.073	79LO	Asserted
442	02/13/22	01:07:10.073	79RS	Deasserted
441	02/13/22	01:07:10.278	LOP	Deasserted
440	02/13/22	01:07:11.232	LOP	Asserted
439	02/13/22	01:07:11.482	LOP	Deasserted
438	02/13/22	01:07:12.681	79LO	Deasserted
437	02/13/22	01:07:12.681	79RS	Asserted
436	02/21/22	15:01:19.226	LOP	Asserted
435	02/21/22	15:01:19.226	79LO	Asserted
434	02/21/22	15:01:19.226	79RS	Deasserted
433	02/21/22	15:47:43.116	LOP	Deasserted
432	02/21/22	15:47:44.318	79LO	Deasserted
431	02/21/22	15:47:44.318	79RS	Asserted
430	02/21/22	21:34:27.298	LOP	Asserted
429	02/21/22	21:34:27.298	79LO	Asserted
428	02/21/22	21:34:27.298	79RS	Deasserted
427	02/21/22	21:34:27.508	LOP	Deasserted
426	02/21/22	21:34:28.705	79LO	Deasserted
425	02/21/22	21:34:28.705	79RS	Asserted
424	02/23/22	19:10:17.207	LOP	Asserted
423	02/23/22	19:10:17.207	79LO	Asserted
422	02/23/22	19:10:17.207	79RS	Deasserted
421	02/23/22	19:10:17.416	LOP	Deasserted
420	02/23/22	19:10:18.611	79LO	Deasserted
419	02/23/22	19:10:18.611	79RS	Asserted
418	02/24/22	00:03:15.000	LOP	Asserted
417	02/24/22	00:03:15.000	79LO	Asserted
416	02/24/22	00:03:15.000	79RS	Deasserted
415	02/24/22	00:03:15.349	LOP	Deasserted
414	02/24/22	00:03:16.546	79LO	Deasserted
413	02/24/22	00:03:16.546	79RS	Asserted
412	02/26/22	10:13:24.615	LOP	Asserted
411	02/26/22	10:13:24.615	79LO	Asserted
410	02/26/22	10:13:24.615	79RS	Deasserted
409	02/26/22	10:13:24.954	LOP	Deasserted
408	02/26/22	10:13:26.152	79LO	Deasserted
407	02/26/22	10:13:26.152	79RS	Asserted
406	03/11/22	21:11:17.960	LOP	Asserted
405	03/11/22	21:11:17.960	79LO	Asserted
404	03/11/22	21:11:17.960	79RS	Deasserted
403	03/11/22	21:11:20.076	LOP	Deasserted
402	03/11/22	21:11:21.279	79LO	Deasserted
401	03/11/22	21:11:21.279	79RS	Asserted
400	03/27/22	12:08:45.893	IN102	Deasserted
399	03/27/22	12:09:12.366	IN101	Deasserted
398	03/27/22	12:09:12.376	79LO	Asserted
397	03/27/22	12:09:12.376	79RS	Deasserted
396	03/27/22	15:44:52.749	IN101	Asserted
395	03/27/22	15:45:22.753	79LO	Deasserted
394	03/27/22	15:45:22.753	79RS	Asserted
393	03/27/22	16:08:42.186	IN101	Deasserted
392	03/27/22	16:08:42.196	79LO	Asserted
391	03/27/22	16:08:42.196	79RS	Deasserted
390	03/27/22	16:08:53.925	IN101	Asserted

389	03/27/22	16:09:23.929	79LO	Deasserted
388	03/27/22	16:09:23.929	79RS	Asserted
387	03/27/22	16:09:38.598	IN101	Deasserted
386	03/27/22	16:09:38.608	79LO	Asserted
385	03/27/22	16:09:38.608	79RS	Deasserted
384	03/27/22	16:22:50.192	IN101	Asserted
383	03/27/22	16:22:51.177	IN101	Deasserted
382	03/27/22	17:23:37.279	IN101	Asserted
381	03/27/22	17:23:44.649	IN101	Deasserted
380	03/27/22	17:26:23.450	IN101	Asserted
379	03/27/22	17:26:34.319	IN101	Deasserted
378	03/27/22	17:28:52.201	IN101	Asserted
377	03/27/22	17:29:22.204	79LO	Deasserted
376	03/27/22	17:29:22.204	79RS	Asserted
375	03/27/22	17:29:22.364	IN101	Deasserted
374	03/27/22	17:29:22.374	79LO	Asserted
373	03/27/22	17:29:22.374	79RS	Deasserted
372	03/27/22	17:29:35.808	IN101	Asserted
371	03/27/22	17:29:49.353	IN101	Deasserted
370	03/27/22	17:30:24.030	IN101	Asserted
369	03/27/22	17:30:54.034	79LO	Deasserted
368	03/27/22	17:30:54.034	79RS	Asserted
367	03/27/22	17:41:10.158	IN101	Deasserted
366	03/27/22	17:41:10.168	79LO	Asserted
365	03/27/22	17:41:10.168	79RS	Deasserted
364	03/27/22	17:41:14.497	IN101	Asserted
363	03/27/22	17:41:24.292	IN101	Deasserted
362	03/27/22	19:07:48.615	IN101	Asserted
361	03/27/22	19:08:18.506	79LO	Deasserted
360	03/27/22	19:08:18.506	79RS	Asserted
359	03/27/22	19:09:08.555	IN102	Asserted
358	04/04/22	13:52:25.386	51G	Asserted
357	04/04/22	13:52:25.401	Z2G	Asserted
356	04/04/22	13:52:25.575	51GT	Asserted
355	04/04/22	13:52:25.575	TRIP	Asserted
354	04/04/22	13:52:25.575	OUT101	Asserted
353	04/04/22	13:52:25.575	OUT102	Asserted
352	04/04/22	13:52:25.575	79CY	Asserted
351	04/04/22	13:52:25.575	79RS	Deasserted
350	04/04/22	13:52:25.605	IN101	Deasserted
349	04/04/22	13:52:25.625	Z2G	Deasserted
348	04/04/22	13:52:25.635	51G	Deasserted
347	04/04/22	13:52:25.655	51GT	Deasserted
346	04/04/22	13:52:25.755	TRIP	Deasserted
345	04/04/22	13:52:25.755	OUT101	Deasserted
344	04/04/22	13:52:25.755	OUT102	Deasserted
343	04/04/22	13:52:27.745	CLOSE	Asserted
342	04/04/22	13:52:27.745	OUT105	Asserted
341	04/04/22	13:52:27.820	CLOSE	Deasserted
340	04/04/22	13:52:27.820	IN101	Asserted
339	04/04/22	13:52:27.820	OUT105	Deasserted
338	04/04/22	13:52:57.756	79CY	Deasserted
337	04/04/22	13:52:57.756	79RS	Asserted
336	04/07/22	22:50:02.345	LOP	Asserted

335	04/07/22	22:50:02.345	79LO	Asserted
334	04/07/22	22:50:02.345	79RS	Deasserted
333	04/07/22	22:50:02.696	LOP	Deasserted
332	04/07/22	22:50:03.900	79LO	Deasserted
331	04/07/22	22:50:03.900	79RS	Asserted
330	04/12/22	15:37:29.389	IN102	Deasserted
329	04/12/22	21:18:52.785	IN102	Asserted
328	04/13/22	13:07:58.962	IN102	Deasserted
327	04/13/22	21:09:44.030	IN102	Asserted
326	04/14/22	12:55:37.414	IN102	Deasserted
325	04/14/22	21:07:14.490	IN102	Asserted
324	04/16/22	14:10:56.704	LOP	Asserted
323	04/16/22	14:10:56.704	79LO	Asserted
322	04/16/22	14:10:56.704	79RS	Deasserted
321	04/16/22	14:10:57.696	LOP	Deasserted
320	04/16/22	14:10:58.893	79LO	Deasserted
319	04/16/22	14:10:58.893	79RS	Asserted
318	04/18/22	13:06:45.650	IN102	Deasserted
317	04/18/22	21:13:46.006	IN102	Asserted
316	04/19/22	13:11:46.548	IN102	Deasserted
315	04/19/22	21:06:01.247	IN102	Asserted
314	04/20/22	12:58:05.026	IN102	Deasserted
313	04/20/22	21:12:10.091	IN102	Asserted
312	04/21/22	13:34:05.868	IN102	Deasserted
311	04/21/22	15:47:01.123	IN102	Asserted
310	04/26/22	16:42:46.186	IN102	Deasserted
309	04/26/22	17:06:17.397	IN102	Asserted
308	04/27/22	15:06:57.157	LOP	Asserted
307	04/27/22	15:06:57.157	79LO	Asserted
306	04/27/22	15:06:57.157	79RS	Deasserted
305	04/27/22	15:06:57.367	LOP	Deasserted
304	04/27/22	15:06:58.566	79LO	Deasserted
303	04/27/22	15:06:58.566	79RS	Asserted
302	04/27/22	16:38:21.178	LOP	Asserted
301	04/27/22	16:38:21.178	79LO	Asserted
300	04/27/22	16:38:21.178	79RS	Deasserted
299	04/27/22	16:38:21.383	LOP	Deasserted
298	04/27/22	16:38:22.586	79LO	Deasserted
297	04/27/22	16:38:22.586	79RS	Asserted
296	06/09/22	14:30:54.021	IN102	Deasserted
295	06/09/22	16:35:50.040	IN102	Asserted
294	06/12/22	13:40:09.983	IN102	Deasserted
293	06/12/22	13:41:43.660	IN101	Deasserted
292	06/12/22	13:41:43.670	79LO	Asserted
291	06/12/22	13:41:43.670	79RS	Deasserted
290	06/12/22	19:05:59.876	IN101	Asserted
289	06/12/22	19:06:29.846	79LO	Deasserted
288	06/12/22	19:06:29.846	79RS	Asserted
287	06/12/22	19:09:03.805	IN102	Asserted
286	06/16/22	14:46:11.504	LOP	Asserted
285	06/16/22	14:46:11.504	79LO	Asserted
284	06/16/22	14:46:11.504	79RS	Deasserted
283	06/16/22	14:46:11.714	LOP	Deasserted
282	06/16/22	14:46:12.912	79LO	Deasserted

281	06/16/22	14:46:12.912	79RS	Asserted
280	06/23/22	21:41:39.777	LOP	Asserted
279	06/23/22	21:41:39.777	79LO	Asserted
278	06/23/22	21:41:39.777	79RS	Deasserted
277	06/23/22	21:41:40.037	LOP	Deasserted
276	06/23/22	21:41:41.238	79LO	Deasserted
275	06/23/22	21:41:41.238	79RS	Asserted
274	07/01/22	00:56:34.166	LOP	Asserted
273	07/01/22	00:56:34.166	79LO	Asserted
272	07/01/22	00:56:34.166	79RS	Deasserted
271	07/01/22	00:56:34.420	LOP	Deasserted
270	07/01/22	00:56:35.620	79LO	Deasserted
269	07/01/22	00:56:35.620	79RS	Asserted
268	07/01/22	01:28:43.449	LOP	Asserted
267	07/01/22	01:28:43.449	79LO	Asserted
266	07/01/22	01:28:43.449	79RS	Deasserted
265	07/01/22	01:28:43.705	LOP	Deasserted
264	07/01/22	01:28:44.906	79LO	Deasserted
263	07/01/22	01:28:44.906	79RS	Asserted
262	07/02/22	18:44:11.045	LOP	Asserted
261	07/02/22	18:44:11.045	79LO	Asserted
260	07/02/22	18:44:11.045	79RS	Deasserted
259	07/02/22	18:44:11.300	LOP	Deasserted
258	07/02/22	18:44:12.500	79LO	Deasserted
257	07/02/22	18:44:12.500	79RS	Asserted
256	07/02/22	18:44:13.175	LOP	Asserted
255	07/02/22	18:44:13.175	79LO	Asserted
254	07/02/22	18:44:13.175	79RS	Deasserted
253	07/02/22	18:44:13.430	LOP	Deasserted
252	07/02/22	18:44:14.630	79LO	Deasserted
251	07/02/22	18:44:14.630	79RS	Asserted
250	07/02/22	18:52:28.641	LOP	Asserted
249	07/02/22	18:52:28.641	79LO	Asserted
248	07/02/22	18:52:28.641	79RS	Deasserted
247	07/02/22	18:52:28.891	LOP	Deasserted
246	07/02/22	18:52:30.089	79LO	Deasserted
245	07/02/22	18:52:30.089	79RS	Asserted
244	07/02/22	18:52:33.713	LOP	Asserted
243	07/02/22	18:52:33.713	79LO	Asserted
242	07/02/22	18:52:33.713	79RS	Deasserted
241	07/02/22	18:52:33.957	LOP	Deasserted
240	07/02/22	18:52:35.155	79LO	Deasserted
239	07/02/22	18:52:35.155	79RS	Asserted
238	07/04/22	11:32:42.749	LOP	Asserted
237	07/04/22	11:32:42.749	79LO	Asserted
236	07/04/22	11:32:42.749	79RS	Deasserted
235	07/04/22	11:32:42.989	LOP	Deasserted
234	07/04/22	11:32:44.188	79LO	Deasserted
233	07/04/22	11:32:44.188	79RS	Asserted
232	07/04/22	19:08:31.433	LOP	Asserted
231	07/04/22	19:08:31.433	79LO	Asserted
230	07/04/22	19:08:31.433	79RS	Deasserted
229	07/04/22	19:08:31.754	LOP	Deasserted
228	07/04/22	19:08:32.956	79LO	Deasserted

227	07/04/22	19:08:32.956	79RS	Asserted
226	07/05/22	06:23:13.799	LOP	Asserted
225	07/05/22	06:23:13.799	79LO	Asserted
224	07/05/22	06:23:13.799	79RS	Deasserted
223	07/05/22	06:23:14.048	LOP	Deasserted
222	07/05/22	06:23:15.244	79LO	Deasserted
221	07/05/22	06:23:15.244	79RS	Asserted
220	07/20/22	06:12:23.390	LOP	Asserted
219	07/20/22	06:12:23.390	79LO	Asserted
218	07/20/22	06:12:23.390	79RS	Deasserted
217	07/20/22	06:12:23.595	LOP	Deasserted
216	07/20/22	06:12:24.796	79LO	Deasserted
215	07/20/22	06:12:24.796	79RS	Asserted
214	07/22/22	11:55:16.374	LOP	Asserted
213	07/22/22	11:55:16.374	79LO	Asserted
212	07/22/22	11:55:16.374	79RS	Deasserted
211	07/22/22	11:55:16.619	LOP	Deasserted
210	07/22/22	11:55:17.818	79LO	Deasserted
209	07/22/22	11:55:17.818	79RS	Asserted
208	08/07/22	03:55:22.046	LOP	Asserted
207	08/07/22	03:55:22.046	79LO	Asserted
206	08/07/22	03:55:22.046	79RS	Deasserted
205	08/07/22	03:55:22.261	LOP	Deasserted
204	08/07/22	03:55:23.460	79LO	Deasserted
203	08/07/22	03:55:23.460	79RS	Asserted
202	08/07/22	07:56:36.924	LOP	Asserted
201	08/07/22	07:56:36.924	79LO	Asserted
200	08/07/22	07:56:36.924	79RS	Deasserted
199	08/07/22	07:56:37.264	LOP	Deasserted
198	08/07/22	07:56:38.463	79LO	Deasserted
197	08/07/22	07:56:38.463	79RS	Asserted
196	08/07/22	07:56:40.328	LOP	Asserted
195	08/07/22	07:56:40.328	79LO	Asserted
194	08/07/22	07:56:40.328	79RS	Deasserted
193	08/07/22	07:56:40.703	LOP	Deasserted
192	08/07/22	07:56:41.903	79LO	Deasserted
191	08/07/22	07:56:41.903	79RS	Asserted
190	08/14/22	12:33:57.083	LOP	Asserted
189	08/14/22	12:33:57.083	79LO	Asserted
188	08/14/22	12:33:57.083	79RS	Deasserted
187	08/14/22	12:33:57.338	LOP	Deasserted
186	08/14/22	12:33:58.537	79LO	Deasserted
185	08/14/22	12:33:58.537	79RS	Asserted
184	08/24/22	14:54:15.221	LOP	Asserted
183	08/24/22	14:54:15.221	79LO	Asserted
182	08/24/22	14:54:15.221	79RS	Deasserted
181	08/24/22	14:54:15.471	LOP	Deasserted
180	08/24/22	14:54:16.672	79LO	Deasserted
179	08/24/22	14:54:16.672	79RS	Asserted
178	08/31/22	15:56:29.733	LOP	Asserted
177	08/31/22	15:56:29.733	79LO	Asserted
176	08/31/22	15:56:29.733	79RS	Deasserted
175	08/31/22	15:56:29.939	LOP	Deasserted
174	08/31/22	15:56:31.142	79LO	Deasserted

173	08/31/22	15:56:31.142	79RS	Asserted
172	11/15/22	12:38:26.024	LOP	Asserted
171	11/15/22	12:38:26.024	79LO	Asserted
170	11/15/22	12:38:26.024	79RS	Deasserted
169	11/15/22	12:38:26.094	LOP	Deasserted
168	11/15/22	12:38:27.217	79LO	Deasserted
167	11/15/22	12:38:27.217	79RS	Asserted
166	11/15/22	12:38:31.530	LOP	Asserted
165	11/15/22	12:38:31.530	79LO	Asserted
164	11/15/22	12:38:31.530	79RS	Deasserted
163	11/15/22	13:11:34.619	LOP	Deasserted
162	11/15/22	13:11:35.820	79LO	Deasserted
161	11/15/22	13:11:35.820	79RS	Asserted
160	12/15/22	20:53:02.630	IN101	Deasserted
159	12/15/22	20:53:02.640	79LO	Asserted
158	12/15/22	20:53:02.640	79RS	Deasserted
157	12/15/22	20:55:56.287	IN101	Asserted
156	12/15/22	20:56:26.234	79LO	Deasserted
155	12/15/22	20:56:26.234	79RS	Asserted
154	12/22/22	12:02:06.114	IN102	Deasserted
153	12/22/22	12:34:07.737	IN102	Asserted
152	12/25/22	16:20:19.056	LOP	Asserted
151	12/25/22	16:20:19.056	79LO	Asserted
150	12/25/22	16:20:19.056	79RS	Deasserted
149	12/25/22	16:20:19.106	LOP	Deasserted
148	12/25/22	16:20:20.309	79LO	Deasserted
147	12/25/22	16:20:20.309	79RS	Asserted
146	12/25/22	16:21:30.125	LOP	Asserted
145	12/25/22	16:21:30.125	79LO	Asserted
144	12/25/22	16:21:30.125	79RS	Deasserted
143	12/25/22	16:21:30.190	LOP	Deasserted
142	12/25/22	16:21:30.636	LOP	Asserted
141	12/25/22	16:21:30.696	LOP	Deasserted
140	12/25/22	16:21:31.898	79LO	Deasserted
139	12/25/22	16:21:31.898	79RS	Asserted
138	12/25/22	16:24:40.196	LOP	Asserted
137	12/25/22	16:24:40.196	79LO	Asserted
136	12/25/22	16:24:40.196	79RS	Deasserted
135	12/25/22	16:24:40.236	LOP	Deasserted
134	12/25/22	16:24:41.439	79LO	Deasserted
133	12/25/22	16:24:41.439	79RS	Asserted
132	01/02/23	10:00:37.999	LOP	Asserted
131	01/02/23	10:00:37.999	79LO	Asserted
130	01/02/23	10:00:37.999	79RS	Deasserted
129	01/02/23	10:00:38.204	LOP	Deasserted
128	01/02/23	10:00:39.406	79LO	Deasserted
127	01/02/23	10:00:39.406	79RS	Asserted
126	01/24/23	02:09:44.121	LOP	Asserted
125	01/24/23	02:09:44.121	79LO	Asserted
124	01/24/23	02:09:44.121	79RS	Deasserted
123	01/24/23	02:09:44.336	LOP	Deasserted
122	01/24/23	02:09:45.538	79LO	Deasserted
121	01/24/23	02:09:45.538	79RS	Asserted
120	01/24/23	02:43:35.619	LOP	Asserted

119	01/24/23	02:43:35.619	79LO	Asserted
118	01/24/23	02:43:35.619	79RS	Deasserted
117	01/24/23	02:43:36.283	LOP	Deasserted
116	01/24/23	02:43:37.482	79LO	Deasserted
115	01/24/23	02:43:37.482	79RS	Asserted
114	01/24/23	11:11:50.781	LOP	Asserted
113	01/24/23	11:11:50.781	79LO	Asserted
112	01/24/23	11:11:50.781	79RS	Deasserted
111	01/24/23	11:11:52.790	LOP	Deasserted
110	01/24/23	11:11:53.993	79LO	Deasserted
109	01/24/23	11:11:53.993	79RS	Asserted
108	02/03/23	21:19:58.244	LOP	Asserted
107	02/03/23	21:19:58.244	79LO	Asserted
106	02/03/23	21:19:58.244	79RS	Deasserted
105	02/03/23	21:19:58.449	LOP	Deasserted
104	02/03/23	21:19:59.651	79LO	Deasserted
103	02/03/23	21:19:59.651	79RS	Asserted
102	02/09/23	01:15:09.777	LOP	Asserted
101	02/09/23	01:15:09.777	79LO	Asserted
100	02/09/23	01:15:09.777	79RS	Deasserted
99	02/09/23	01:15:10.046	LOP	Deasserted
98	02/09/23	01:15:11.243	79LO	Deasserted
97	02/09/23	01:15:11.243	79RS	Asserted
96	02/18/23	05:30:17.383	LOP	Asserted
95	02/18/23	05:30:17.383	79LO	Asserted
94	02/18/23	05:30:17.383	79RS	Deasserted
93	02/18/23	05:30:17.747	LOP	Deasserted
92	02/18/23	05:30:18.945	79LO	Deasserted
91	02/18/23	05:30:18.945	79RS	Asserted
90	02/28/23	14:22:16.176	LOP	Asserted
89	02/28/23	14:22:16.176	79LO	Asserted
88	02/28/23	14:22:16.176	79RS	Deasserted
87	02/28/23	14:22:16.457	LOP	Deasserted
86	02/28/23	14:22:17.657	79LO	Deasserted
85	02/28/23	14:22:17.657	79RS	Asserted
84	03/02/23	10:17:34.076	LOP	Asserted
83	03/02/23	10:17:34.076	79LO	Asserted
82	03/02/23	10:17:34.076	79RS	Deasserted
81	03/02/23	10:17:34.326	LOP	Deasserted
80	03/02/23	10:17:35.523	79LO	Deasserted
79	03/02/23	10:17:35.523	79RS	Asserted
78	03/06/23	16:59:27.881	LOP	Asserted
77	03/06/23	16:59:27.881	79LO	Asserted
76	03/06/23	16:59:27.881	79RS	Deasserted
75	03/06/23	16:59:29.976	LOP	Deasserted
74	03/06/23	16:59:31.176	79LO	Deasserted
73	03/06/23	16:59:31.176	79RS	Asserted
72	03/22/23	16:26:55.733	IN102	Deasserted
71	03/22/23	19:18:57.390	IN102	Asserted
70	04/29/23	05:35:27.292	51G	Asserted
69	04/29/23	05:35:27.307	Z2G	Asserted
68	04/29/23	05:35:27.521	51GT	Asserted
67	04/29/23	05:35:27.521	TRIP	Asserted
66	04/29/23	05:35:27.521	OUT101	Asserted

65	04/29/23	05:35:27.521	OUT102	Asserted
64	04/29/23	05:35:27.521	79CY	Asserted
63	04/29/23	05:35:27.521	79RS	Deasserted
62	04/29/23	05:35:27.536	IN101	Deasserted
61	04/29/23	05:35:27.546	Z1T	Asserted
60	04/29/23	05:35:27.546	Z1G	Asserted
59	04/29/23	05:35:27.556	Z1T	Deasserted
58	04/29/23	05:35:27.556	Z1G	Deasserted
57	04/29/23	05:35:27.561	Z2G	Deasserted
56	04/29/23	05:35:27.581	51G	Deasserted
55	04/29/23	05:35:27.601	51GT	Deasserted
54	04/29/23	05:35:27.701	TRIP	Deasserted
53	04/29/23	05:35:27.701	OUT101	Deasserted
52	04/29/23	05:35:27.701	OUT102	Deasserted
51	04/29/23	05:35:29.695	CLOSE	Asserted
50	04/29/23	05:35:29.695	OUT105	Asserted
49	04/29/23	05:35:29.770	CLOSE	Deasserted
48	04/29/23	05:35:29.770	IN101	Asserted
47	04/29/23	05:35:29.770	OUT105	Deasserted
46	04/29/23	05:35:29.780	51G	Asserted
45	04/29/23	05:35:29.780	SOTFT	Asserted
44	04/29/23	05:35:29.780	TRIP	Asserted
43	04/29/23	05:35:29.780	OUT101	Asserted
42	04/29/23	05:35:29.780	OUT102	Asserted
41	04/29/23	05:35:29.780	79LO	Asserted
40	04/29/23	05:35:29.780	79CY	Deasserted
39	04/29/23	05:35:29.790	M2P	Asserted
38	04/29/23	05:35:29.790	M3P	Asserted
37	04/29/23	05:35:29.795	Z1T	Asserted
36	04/29/23	05:35:29.795	M1P	Asserted
35	04/29/23	05:35:29.795	51P	Asserted
34	04/29/23	05:35:29.810	IN101	Deasserted
33	04/29/23	05:35:29.830	Z1T	Deasserted
32	04/29/23	05:35:29.830	M1P	Deasserted
31	04/29/23	05:35:29.835	M2P	Deasserted
30	04/29/23	05:35:29.840	SOTFT	Deasserted
29	04/29/23	05:35:29.840	M3P	Deasserted
28	04/29/23	05:35:29.845	51P	Deasserted
27	04/29/23	05:35:29.850	51G	Deasserted
26	04/29/23	05:35:29.960	TRIP	Deasserted
25	04/29/23	05:35:29.960	OUT101	Deasserted
24	04/29/23	05:35:29.960	OUT102	Deasserted
23	04/29/23	05:39:04.000	IN102	Deasserted
22	04/29/23	05:39:17.589	IN101	Asserted
21	04/29/23	05:39:17.600	51G	Asserted
20	04/29/23	05:39:17.600	SOTFT	Asserted
19	04/29/23	05:39:17.600	TRIP	Asserted
18	04/29/23	05:39:17.600	OUT101	Asserted
17	04/29/23	05:39:17.600	OUT102	Asserted
16	04/29/23	05:39:17.605	M3P	Asserted
15	04/29/23	05:39:17.610	Z1T	Asserted
14	04/29/23	05:39:17.610	M2P	Asserted
13	04/29/23	05:39:17.610	M1P	Asserted
12	04/29/23	05:39:17.615	51P	Asserted

11	04/29/23	05:39:17.630	IN101	Deasserted
10	04/29/23	05:39:17.640	Z1T	Deasserted
9	04/29/23	05:39:17.640	M1P	Deasserted
8	04/29/23	05:39:17.645	M2P	Deasserted
7	04/29/23	05:39:17.650	SOTFT	Deasserted
6	04/29/23	05:39:17.650	M3P	Deasserted
5	04/29/23	05:39:17.655	51P	Deasserted
4	04/29/23	05:39:17.660	51G	Deasserted
3	04/29/23	05:39:17.780	TRIP	Deasserted
2	04/29/23	05:39:17.780	OUT101	Deasserted
1	04/29/23	05:39:17.780	OUT102	Deasserted

=>MET

21/21N 52B2 S1 Date: 04/29/23 Time: 09:52:52.013
SE AIHUAPI

	A	B	C	N	G
I MAG (A)	0.001	0.005	0.008	0.015	0.012
I ANG (DEG)	-174.80	130.73	-163.49	174.70	174.89

	A	B	C	S
V MAG (KV)	38.400	38.684	38.547	0.007
V ANG (DEG)	0.00	-120.00	119.60	22.30

	A	B	C	3P
MW	-0.000	-0.000	0.000	-0.000
MVAR	0.000	0.000	-0.000	-0.000
PF	-0.996	-0.330	0.227	-0.204
	LEAD	LEAD	LEAD	LAG

	I1	3I2	3I0	V1	V2	3V0
MAG	0.001	0.011	0.012	38.543	0.173	0.027
ANG (DEG)	100.86	-27.42	174.89	-0.13	150.57	33.03

	FREQ (Hz)	VDC (V)
	50.14	135.7

=>STA

21/21N 52B2 S1 Date: 04/29/23 Time: 09:52:53.840
SE AIHUAPI

FID=SEL-311C-1-R505-V0-Z101101-D20130620 CID=D6A4

SELF TESTS

W=Warn F=Fail

	IA	IB	IC	IN	VA	VB	VC	VS	MOF
OS	-1	-1	-1	-1	-1	-1	-1	-1	-1
OSH	-0	-0	0	-0					

	15V_PS	5V_REG	3.3V_REG
PS	14.84	4.99	3.28

	RAM	ROM	FPGA	EEPROM	FLASH	A/D	USB_BRD	COM_BRD	
IO_BRD	OK	OK	OK	OK	OK	OK	NA	OK	NA
	TEMP	RTC	HMI						
	42.3	OK	OK						

Relay Enabled

=>

ser 1

21/21N 52B2 S2 Date: 04/29/23 Time: 10:01:26.981
SE AIHUAPI

FID=SEL-311C-1-R505-V0-Z101101-D20130620 CID=D6A4

#	Date	Time	Element	State
1	04/29/23	05:39:17.780	OUT102	Deasserted

=>his

21/21N 52B2 S2 Date: 04/29/23 Time: 10:01:29.004
SE AIHUAPI

#	DATE	TIME	EVENT	LOCAT	CURR	FREQ	GRP	SHOT	TARGETS
1	04/29/23	05:39:17.600	ABG T	15.91	1353	49.95	1		TRIP SOTF
2	04/29/23	05:35:29.780	ABG T	15.89	1316	50.02	1		TRIP SOTF
3	04/29/23	05:35:27.302	CG T	15.41	962	50.03	1		TRIP TIME 51
4	03/06/23	16:59:27.888	ER	\$\$\$\$\$\$	14	50.02	1		
5	03/02/23	10:17:34.083	ER	\$\$\$\$\$\$	31	50.12	1		
6	02/28/23	14:22:16.182	ER	\$\$\$\$\$\$	25	49.95	1		
7	02/18/23	05:30:17.390	ER	\$\$\$\$\$\$	16	50.09	1		
8	02/09/23	01:15:09.783	ER	\$\$\$\$\$\$	31	50.13	1		
9	02/04/23	01:38:16.766	ER	\$\$\$\$\$\$	18	49.88	1		
10	02/03/23	21:19:59.441	ER	\$\$\$\$\$\$	16	49.92	1		
11	01/24/23	11:11:50.786	ER	\$\$\$\$\$\$	13	49.86	1		
12	01/24/23	02:43:35.624	ER	\$\$\$\$\$\$	20	50.06	1		
13	01/24/23	02:09:44.125	ER	\$\$\$\$\$\$	14	49.93	1		

=>ser 10000□

21/21N 52B2 S2 Date: 04/29/23 Time: 10:01:52.223
SE AIHUAPI

FID=SEL-311C-1-R505-V0-Z101101-D20130620 CID=D6A4

#	Date	Time	Element	State
1000	03/10/16	17:25:46.245	Z2G	Asserted
999	03/10/16	17:25:46.245	Z1G	Asserted
998	03/10/16	17:25:46.245	OUT107	Asserted
997	03/10/16	17:25:46.315	SOTFT	Deasserted
996	03/10/16	17:25:46.315	OUT107	Deasserted
995	03/10/16	17:25:46.325	51G	Deasserted
994	03/10/16	17:25:46.330	Z1T	Deasserted
993	03/10/16	17:25:46.330	Z2G	Deasserted
992	03/10/16	17:25:46.330	Z1G	Deasserted
991	03/10/16	17:25:46.415	TRIP	Deasserted
990	03/10/16	17:25:47.435	51G	Asserted
989	03/10/16	17:25:48.055	51GT	Asserted
988	03/10/16	17:25:48.055	TRIP	Asserted
987	03/10/16	17:25:48.055	OUT107	Asserted

986	03/10/16	17:25:48.115	LOP	Asserted
985	03/10/16	17:25:48.120	LOP	Deasserted
984	03/10/16	17:25:48.125	51G	Deasserted
983	03/10/16	17:25:48.145	51GT	Deasserted
982	03/10/16	17:25:48.145	OUT107	Deasserted
981	03/10/16	17:25:48.235	TRIP	Deasserted
980	03/10/16	17:25:49.225	51G	Asserted
979	03/10/16	17:25:49.605	51GT	Asserted
978	03/10/16	17:25:49.605	TRIP	Asserted
977	03/10/16	17:25:49.605	OUT107	Asserted
976	03/10/16	17:25:49.665	LOP	Asserted
975	03/10/16	17:25:49.670	LOP	Deasserted
974	03/10/16	17:25:49.675	Z2G	Asserted
973	03/10/16	17:25:49.685	Z2G	Deasserted
972	03/10/16	17:25:49.685	51G	Deasserted
971	03/10/16	17:25:49.705	51GT	Deasserted
970	03/10/16	17:25:49.705	OUT107	Deasserted
969	03/10/16	17:25:49.785	TRIP	Deasserted
968	03/10/16	17:25:50.775	51G	Asserted
967	03/10/16	17:25:50.790	Z2G	Asserted
966	03/10/16	17:25:51.055	51GT	Asserted
965	03/10/16	17:25:51.055	TRIP	Asserted
964	03/10/16	17:25:51.055	OUT107	Asserted
963	03/10/16	17:25:51.135	Z2G	Deasserted
962	03/10/16	17:25:51.135	51G	Deasserted
961	03/10/16	17:25:51.155	51GT	Deasserted
960	03/10/16	17:25:51.155	OUT107	Deasserted
959	03/10/16	17:25:51.235	TRIP	Deasserted
958	03/10/16	17:25:52.225	51G	Asserted
957	03/10/16	17:25:52.240	Z2G	Asserted
956	03/10/16	17:25:52.240	SOTFT	Asserted
955	03/10/16	17:25:52.240	TRIP	Asserted
954	03/10/16	17:25:52.245	Z1T	Asserted
953	03/10/16	17:25:52.245	Z1G	Asserted
952	03/10/16	17:25:52.445	51GT	Asserted
951	03/10/16	17:25:52.445	OUT107	Asserted
950	03/10/16	17:25:52.470	SOTFT	Deasserted
949	03/10/16	17:25:52.505	Z1T	Deasserted
948	03/10/16	17:25:52.505	Z2G	Deasserted
947	03/10/16	17:25:52.505	Z1G	Deasserted
946	03/10/16	17:25:52.505	LOP	Asserted
945	03/10/16	17:25:52.510	51P	Asserted
944	03/10/16	17:25:52.520	51P	Deasserted
943	03/10/16	17:25:52.530	LOP	Deasserted
942	03/10/16	17:25:52.535	51G	Deasserted
941	03/10/16	17:25:52.555	51GT	Deasserted
940	03/10/16	17:25:52.555	TRIP	Deasserted
939	03/10/16	17:25:52.555	OUT107	Deasserted
938	03/10/16	17:25:53.585	51G	Asserted
937	03/10/16	17:25:53.585	SOTFT	Asserted
936	03/10/16	17:25:53.585	TRIP	Asserted
935	03/10/16	17:25:53.590	Z2G	Asserted
934	03/10/16	17:25:53.595	Z1T	Asserted
933	03/10/16	17:25:53.595	Z1G	Asserted

932	03/10/16	17:25:53.600	OUT107	Asserted
931	03/10/16	17:25:53.610	OUT107	Deasserted
930	03/10/16	17:25:53.620	OUT107	Asserted
929	03/10/16	17:25:53.630	OUT107	Deasserted
928	03/10/16	17:25:53.645	OUT107	Asserted
927	03/10/16	17:25:53.655	OUT107	Deasserted
926	03/10/16	17:25:53.670	SOTFT	Deasserted
925	03/10/16	17:25:53.685	Z1T	Deasserted
924	03/10/16	17:25:53.685	Z2G	Deasserted
923	03/10/16	17:25:53.685	Z1G	Deasserted
922	03/10/16	17:25:53.685	51G	Deasserted
921	03/10/16	17:25:53.765	TRIP	Deasserted
920	03/10/16	17:25:54.775	51G	Asserted
919	03/10/16	17:25:54.775	SOTFT	Asserted
918	03/10/16	17:25:54.775	TRIP	Asserted
917	03/10/16	17:25:54.785	Z1T	Asserted
916	03/10/16	17:25:54.785	Z2G	Asserted
915	03/10/16	17:25:54.785	Z1G	Asserted
914	03/10/16	17:25:54.785	OUT107	Asserted
913	03/10/16	17:25:54.845	Z1T	Deasserted
912	03/10/16	17:25:54.845	Z2G	Deasserted
911	03/10/16	17:25:54.845	Z1G	Deasserted
910	03/10/16	17:25:54.845	LOP	Asserted
909	03/10/16	17:25:54.850	51P	Asserted
908	03/10/16	17:25:54.855	OUT107	Deasserted
907	03/10/16	17:25:54.865	SOTFT	Deasserted
906	03/10/16	17:25:54.870	51P	Deasserted
905	03/10/16	17:25:54.875	LOP	Deasserted
904	03/10/16	17:25:54.875	51G	Deasserted
903	03/10/16	17:25:54.955	TRIP	Deasserted
902	03/10/16	17:25:55.995	51G	Asserted
901	03/10/16	17:25:55.995	SOTFT	Asserted
900	03/10/16	17:25:55.995	TRIP	Asserted
899	03/10/16	17:25:55.995	OUT107	Asserted
898	03/10/16	17:25:56.000	Z2G	Asserted
897	03/10/16	17:25:56.005	Z1T	Asserted
896	03/10/16	17:25:56.005	Z1G	Asserted
895	03/10/16	17:25:56.065	OUT107	Deasserted
894	03/10/16	17:25:56.075	SOTFT	Deasserted
893	03/10/16	17:25:56.085	Z1T	Deasserted
892	03/10/16	17:25:56.085	Z2G	Deasserted
891	03/10/16	17:25:56.085	Z1G	Deasserted
890	03/10/16	17:25:56.085	51G	Deasserted
889	03/10/16	17:25:56.175	TRIP	Deasserted
888	03/10/16	17:28:48.415	Relay settings changed	
887	03/11/16	17:10:44.928	IN101	Asserted
886	03/11/16	17:14:32.090	IN101	Deasserted
885	03/11/16	17:18:47.311	IN101	Asserted
884	03/30/16	12:39:51.851	51G	Asserted
883	03/30/16	12:39:54.212	51GT	Asserted
882	03/30/16	12:39:54.212	TRIP	Asserted
881	03/30/16	12:39:54.212	OUT101	Asserted
880	03/30/16	12:39:54.212	OUT102	Asserted
879	03/30/16	12:39:54.242	IN101	Deasserted

878	03/30/16	12:39:54.272	51G	Deasserted
877	03/30/16	12:39:54.292	51GT	Deasserted
876	03/30/16	12:39:54.392	TRIP	Deasserted
875	03/30/16	12:39:54.392	OUT101	Deasserted
874	03/30/16	12:39:54.392	OUT102	Deasserted
873	03/30/16	20:35:48.732	IN101	Asserted
872	03/30/16	20:35:57.565	51G	Asserted
871	03/30/16	20:35:59.698	51GT	Asserted
870	03/30/16	20:35:59.698	TRIP	Asserted
869	03/30/16	20:35:59.698	OUT101	Asserted
868	03/30/16	20:35:59.698	OUT102	Asserted
867	03/30/16	20:35:59.728	IN101	Deasserted
866	03/30/16	20:35:59.748	51G	Deasserted
865	03/30/16	20:35:59.768	51GT	Deasserted
864	03/30/16	20:35:59.878	TRIP	Deasserted
863	03/30/16	20:35:59.878	OUT101	Deasserted
862	03/30/16	20:35:59.878	OUT102	Deasserted
861	03/31/16	14:04:24.481	IN101	Asserted
860	03/31/16	14:06:10.017	IN101	Deasserted
859	03/31/16	14:08:42.863	IN101	Asserted
858	04/06/16	21:40:25.933	LOP	Asserted
857	04/06/16	21:40:26.138	LOP	Deasserted
856	04/06/16	21:40:28.250	LOP	Asserted
855	04/06/16	21:40:28.460	LOP	Deasserted
854	04/07/16	00:19:41.006	LOP	Asserted
853	04/07/16	00:19:41.301	LOP	Deasserted
852	04/07/16	00:20:46.296	LOP	Asserted
851	04/07/16	00:20:46.506	LOP	Deasserted
850	04/23/16	12:26:49.620	LOP	Asserted
849	04/23/16	12:26:49.830	LOP	Deasserted
848	05/25/16	11:59:16.271	51G	Asserted
847	05/25/16	11:59:17.844	51GT	Asserted
846	05/25/16	11:59:17.844	TRIP	Asserted
845	05/25/16	11:59:17.844	OUT101	Asserted
844	05/25/16	11:59:17.844	OUT102	Asserted
843	05/25/16	11:59:17.874	IN101	Deasserted
842	05/25/16	11:59:17.904	51G	Deasserted
841	05/25/16	11:59:17.924	51GT	Deasserted
840	05/25/16	11:59:18.024	TRIP	Deasserted
839	05/25/16	11:59:18.024	OUT101	Deasserted
838	05/25/16	11:59:18.024	OUT102	Deasserted
837	05/25/16	13:47:58.664	IN101	Asserted
836	05/25/16	13:49:05.830	IN101	Deasserted
835	05/25/16	13:50:20.263	IN101	Asserted
834	07/11/16	00:57:50.966	LOP	Asserted
833	07/11/16	00:57:51.226	LOP	Deasserted
832	07/24/16	13:43:17.290	LOP	Asserted
831	07/24/16	13:43:17.640	LOP	Deasserted
830	07/24/16	13:43:22.545	LOP	Asserted
829	07/24/16	13:43:22.885	LOP	Deasserted
828	07/24/16	13:43:27.791	LOP	Asserted
827	07/24/16	13:43:28.136	LOP	Deasserted
826	08/15/16	20:17:47.387	LOP	Asserted
825	08/15/16	20:17:47.592	LOP	Deasserted

824	08/16/16	10:47:28.809	LOP	Asserted
823	08/16/16	10:47:29.079	LOP	Deasserted
822	08/16/16	12:07:09.406	LOP	Asserted
821	08/16/16	12:07:09.662	LOP	Deasserted
820	08/16/16	15:17:26.671	LOP	Asserted
819	08/16/16	15:17:26.971	LOP	Deasserted
818	08/16/16	15:17:31.875	LOP	Asserted
817	08/16/16	15:17:32.205	LOP	Deasserted
816	08/16/16	15:17:37.184	LOP	Asserted
815	08/16/16	15:17:37.424	LOP	Deasserted
814	10/02/16	02:02:59.767	LOP	Asserted
813	10/02/16	06:06:24.875	LOP	Deasserted
812	10/06/16	14:01:27.779	LOP	Asserted
811	10/06/16	14:01:28.019	LOP	Deasserted
810	10/13/16	15:17:14.620	LOP	Asserted
809	10/13/16	15:17:14.871	LOP	Deasserted
808	10/30/16	23:51:36.260	LOP	Asserted
807	10/30/16	23:51:36.510	LOP	Deasserted
806	11/09/16	18:06:07.199	Relay settings changed	
805	11/10/16	11:19:17.703	LOP	Asserted
804	11/10/16	11:53:40.635	LOP	Deasserted
803	11/18/16	10:44:21.855	LOP	Asserted
802	11/18/16	10:44:22.065	LOP	Deasserted
801	12/05/16	18:59:47.446	IN101	Deasserted
800	12/05/16	22:03:31.583	IN101	Asserted
799	12/05/16	22:03:31.613	51G	Asserted
798	12/05/16	22:03:32.404	51GT	Asserted
797	12/05/16	22:03:32.404	TRIP	Asserted
796	12/05/16	22:03:32.404	OUT101	Asserted
795	12/05/16	22:03:32.404	OUT102	Asserted
794	12/05/16	22:03:32.434	IN101	Deasserted
793	12/05/16	22:03:32.474	51G	Deasserted
792	12/05/16	22:03:32.494	51GT	Deasserted
791	12/05/16	22:03:32.584	TRIP	Deasserted
790	12/05/16	22:03:32.584	OUT101	Deasserted
789	12/05/16	22:03:32.584	OUT102	Deasserted
788	12/06/16	01:47:32.496	IN101	Asserted
787	12/06/16	01:47:32.501	51G	Asserted
786	12/06/16	01:47:33.271	51GT	Asserted
785	12/06/16	01:47:33.271	TRIP	Asserted
784	12/06/16	01:47:33.271	OUT101	Asserted
783	12/06/16	01:47:33.271	OUT102	Asserted
782	12/06/16	01:47:33.301	IN101	Deasserted
781	12/06/16	01:47:33.331	51G	Deasserted
780	12/06/16	01:47:33.351	51GT	Deasserted
779	12/06/16	01:47:33.451	TRIP	Deasserted
778	12/06/16	01:47:33.451	OUT101	Deasserted
777	12/06/16	01:47:33.451	OUT102	Deasserted
776	12/06/16	03:12:34.135	IN101	Asserted
775	12/06/16	03:14:19.718	IN101	Deasserted
774	12/06/16	03:40:08.581	IN101	Asserted
773	12/15/16	13:19:17.633	LOP	Asserted
772	12/15/16	13:19:17.903	LOP	Deasserted
771	12/15/16	13:19:18.675	LOP	Asserted

770	12/15/16	13:19:18.860	LOP	Deasserted
769	12/15/16	13:19:19.951	LOP	Asserted
768	12/15/16	13:22:23.485	LOP	Deasserted
767	12/16/16	08:16:17.944	LOP	Asserted
766	12/16/16	10:10:31.493	LOP	Deasserted
765	01/25/17	14:42:24.639	LOP	Asserted
764	01/25/17	14:42:24.869	LOP	Deasserted
763	02/10/17	09:27:11.401	IN101	Deasserted
762	02/10/17	17:33:54.081	IN101	Asserted
761	02/13/17	08:36:51.440	IN101	Deasserted
760	02/13/17	18:02:25.396	IN101	Asserted
759	02/14/17	08:39:45.080	IN101	Deasserted
758	02/14/17	17:56:21.451	IN101	Asserted
757	02/15/17	08:31:28.351	IN101	Deasserted
756	02/15/17	17:53:15.144	IN101	Asserted
755	02/16/17	08:48:15.588	IN101	Deasserted
754	02/16/17	16:40:15.100	IN101	Asserted
753	03/02/17	10:21:58.517	IN101	Deasserted
752	03/02/17	16:28:46.775	IN101	Asserted
751	03/08/17	12:25:47.269	LOP	Asserted
750	03/08/17	12:25:47.534	LOP	Deasserted
749	03/09/17	15:04:29.970	LOP	Asserted
748	03/09/17	15:04:30.636	LOP	Deasserted
747	03/12/17	09:01:04.881	IN101	Deasserted
746	03/12/17	13:28:19.563	IN101	Asserted
745	03/12/17	13:28:28.294	IN101	Deasserted
744	03/12/17	13:32:26.675	IN101	Asserted
743	03/12/17	13:33:23.149	IN101	Deasserted
742	03/12/17	13:34:41.265	IN101	Asserted
741	03/12/17	13:35:24.033	IN101	Deasserted
740	03/12/17	14:57:13.149	IN101	Asserted
739	03/12/17	15:54:17.897	IN101	Deasserted
738	03/12/17	15:54:51.548	IN101	Asserted
737	04/16/17	20:06:09.505	LOP	Asserted
736	04/16/17	20:06:09.775	LOP	Deasserted
735	05/13/17	22:21:43.510	LOP	Asserted
734	05/13/17	22:21:43.766	LOP	Deasserted
733	05/16/17	15:26:22.126	LOP	Asserted
732	05/16/17	15:26:22.441	LOP	Deasserted
731	05/21/17	04:42:42.280	LOP	Asserted
730	05/21/17	04:42:42.947	LOP	Deasserted
729	06/07/17	11:33:33.576	LOP	Asserted
728	06/07/17	11:33:33.786	LOP	Deasserted
727	06/14/17	18:52:23.543	LOP	Asserted
726	06/14/17	18:52:23.788	LOP	Deasserted
725	06/16/17	05:42:48.438	LOP	Asserted
724	06/16/17	05:42:48.687	LOP	Deasserted
723	06/21/17	11:45:46.967	LOP	Asserted
722	06/21/17	11:45:47.236	LOP	Deasserted
721	06/21/17	12:02:26.356	LOP	Asserted
720	06/21/17	12:02:26.616	LOP	Deasserted
719	06/21/17	12:13:51.332	LOP	Asserted
718	06/21/17	12:13:51.602	LOP	Deasserted
717	06/21/17	12:13:53.494	LOP	Asserted

716	06/21/17	12:13:53.765	LOP	Deasserted
715	07/07/17	09:34:38.771	LOP	Asserted
714	07/07/17	09:34:39.182	LOP	Deasserted
713	07/07/17	09:34:44.400	LOP	Asserted
712	07/07/17	09:34:44.791	LOP	Deasserted
711	07/10/17	18:30:32.871	LOP	Asserted
710	07/10/17	18:30:33.111	LOP	Deasserted
709	07/12/17	19:15:01.699	LOP	Asserted
708	07/12/17	19:15:01.959	LOP	Deasserted
707	07/13/17	13:04:43.956	LOP	Asserted
706	07/13/17	13:04:45.125	LOP	Deasserted
705	07/13/17	13:05:28.266	LOP	Asserted
704	07/13/17	13:13:21.261	LOP	Deasserted
703	07/15/17	11:36:40.870	LOP	Asserted
702	07/15/17	11:37:37.849	LOP	Deasserted
701	07/15/17	15:36:04.446	LOP	Asserted
700	07/15/17	15:36:44.014	LOP	Deasserted
699	07/23/17	14:24:39.006	LOP	Asserted
698	07/23/17	14:24:39.366	LOP	Deasserted
697	08/07/17	18:25:30.514	LOP	Asserted
696	08/07/17	18:25:30.724	LOP	Deasserted
695	08/08/17	09:09:54.721	LOP	Asserted
694	08/08/17	09:09:54.992	LOP	Deasserted
693	08/19/17	15:17:11.706	LOP	Asserted
692	08/19/17	15:17:11.915	LOP	Deasserted
691	08/22/17	03:39:11.929	LOP	Asserted
690	08/22/17	03:39:12.169	LOP	Deasserted
689	08/22/17	07:41:01.490	LOP	Asserted
688	08/22/17	07:41:01.754	LOP	Deasserted
687	08/22/17	07:41:01.999	LOP	Asserted
686	08/22/17	07:41:02.484	LOP	Deasserted
685	08/23/17	18:35:37.277	LOP	Asserted
684	08/23/17	18:35:37.532	LOP	Deasserted
683	09/16/17	11:20:25.944	IN101	Deasserted
682	09/16/17	11:21:06.042	IN101	Asserted
681	09/16/17	14:36:10.040	IN101	Deasserted
680	09/16/17	14:40:58.882	IN101	Asserted
679	10/20/17	07:35:31.087	LOP	Asserted
678	10/20/17	07:35:31.451	LOP	Deasserted
677	10/20/17	07:35:36.753	LOP	Asserted
676	10/20/17	07:35:37.118	LOP	Deasserted
675	10/29/17	18:19:01.744	LOP	Asserted
674	10/29/17	18:19:02.129	LOP	Deasserted
673	10/29/17	18:19:07.049	LOP	Asserted
672	10/29/17	18:19:07.444	LOP	Deasserted
671	11/07/17	11:45:33.620	LOP	Asserted
670	11/07/17	11:45:33.875	LOP	Deasserted
669	11/23/17	16:57:01.383	LOP	Asserted
668	11/23/17	16:57:01.653	LOP	Deasserted
667	12/10/17	14:25:52.150	LOP	Asserted
666	12/10/17	14:25:52.355	LOP	Deasserted
665	12/10/17	14:34:11.246	LOP	Asserted
664	12/10/17	14:34:11.456	LOP	Deasserted
663	12/10/17	15:08:35.609	LOP	Asserted

662	12/10/17	15:08:35.820	LOP	Deasserted
661	12/21/17	09:58:54.780	IN101	Deasserted
660	12/21/17	14:57:39.028	IN101	Asserted
659	01/01/18	12:28:38.987	LOP	Asserted
658	01/01/18	12:28:39.357	LOP	Deasserted
657	01/06/18	09:58:56.247	LOP	Asserted
656	01/06/18	09:58:56.517	LOP	Deasserted
655	01/13/18	13:22:20.596	LOP	Asserted
654	01/13/18	13:22:20.856	LOP	Deasserted
653	02/12/18	15:02:46.680	LOP	Asserted
652	02/12/18	15:02:46.885	LOP	Deasserted
651	02/12/18	15:29:22.898	LOP	Asserted
650	02/12/18	15:29:23.108	LOP	Deasserted
649	02/12/18	16:09:57.626	LOP	Asserted
648	02/12/18	16:09:57.831	LOP	Deasserted
647	03/04/18	09:00:55.787	LOP	Asserted
646	03/04/18	09:01:35.672	IN101	Deasserted
645	03/04/18	15:35:35.561	LOP	Deasserted
644	03/04/18	15:35:47.126	IN101	Asserted
643	04/16/18	21:04:41.041	LOP	Asserted
642	04/16/18	21:04:41.311	LOP	Deasserted
641	04/16/18	21:04:44.314	LOP	Asserted
640	04/16/18	21:04:44.584	LOP	Deasserted
639	04/25/18	08:18:02.210	LOP	Asserted
638	04/25/18	08:18:02.460	LOP	Deasserted
637	05/01/18	14:49:09.107	LOP	Asserted
636	05/01/18	14:49:09.462	LOP	Deasserted
635	05/22/18	12:23:29.657	LOP	Asserted
634	05/22/18	12:23:29.867	LOP	Deasserted
633	07/03/18	01:41:42.199	LOP	Asserted
632	07/03/18	01:41:42.474	LOP	Deasserted
631	07/13/18	09:03:22.931	LOP	Asserted
630	07/13/18	09:03:23.170	LOP	Deasserted
629	07/13/18	09:03:25.093	LOP	Asserted
628	07/13/18	09:03:25.328	LOP	Deasserted
627	07/27/18	18:45:20.986	LOP	Asserted
626	07/27/18	18:45:21.191	LOP	Deasserted
625	07/28/18	18:21:03.800	LOP	Asserted
624	07/28/18	18:21:04.185	LOP	Deasserted
623	08/09/18	17:13:28.180	LOP	Asserted
622	08/09/18	17:13:28.446	LOP	Deasserted
621	08/24/18	09:24:32.923	LOP	Asserted
620	08/24/18	09:24:33.182	LOP	Deasserted
619	09/13/18	21:53:00.685	LOP	Asserted
618	09/13/18	21:53:00.889	LOP	Deasserted
617	09/28/18	13:51:01.114	LOP	Asserted
616	09/28/18	13:51:01.424	LOP	Deasserted
615	10/13/18	08:16:41.701	IN101	Deasserted
614	10/13/18	10:49:25.825	IN101	Asserted
613	10/19/18	14:24:05.197	LOP	Asserted
612	10/19/18	14:24:05.407	LOP	Deasserted
611	11/07/18	14:20:11.857	LOP	Asserted
610	11/07/18	14:20:12.197	LOP	Deasserted
609	12/02/18	05:50:18.451	LOP	Asserted

608	12/02/18	05:50:18.671	LOP	Deasserted
607	12/04/18	16:06:40.513	LOP	Asserted
606	12/04/18	16:06:40.854	LOP	Deasserted
605	12/05/18	21:52:14.639	LOP	Asserted
604	12/05/18	22:32:07.918	LOP	Deasserted
603	12/05/18	22:34:44.183	LOP	Asserted
602	12/05/18	22:34:44.398	LOP	Deasserted
601	12/11/18	11:26:14.421	LOP	Asserted
600	12/11/18	11:26:14.686	LOP	Deasserted
599	12/21/18	08:30:38.438	LOP	Asserted
598	12/21/18	10:13:22.258	LOP	Deasserted
597	12/31/18	22:19:17.360	LOP	Asserted
596	12/31/18	22:19:17.700	LOP	Deasserted
595	01/18/19	03:52:08.896	LOP	Asserted
594	01/18/19	03:52:09.106	LOP	Deasserted
593	02/04/19	11:31:53.791	51G	Asserted
592	02/04/19	11:31:55.394	51GT	Asserted
591	02/04/19	11:31:55.394	TRIP	Asserted
590	02/04/19	11:31:55.394	OUT101	Asserted
589	02/04/19	11:31:55.394	OUT102	Asserted
588	02/04/19	11:31:55.425	IN101	Deasserted
587	02/04/19	11:31:55.445	51G	Deasserted
586	02/04/19	11:31:55.465	51GT	Deasserted
585	02/04/19	11:31:55.575	TRIP	Deasserted
584	02/04/19	11:31:55.575	OUT101	Deasserted
583	02/04/19	11:31:55.575	OUT102	Deasserted
582	02/04/19	11:31:57.663	IN101	Asserted
581	02/04/19	16:14:25.464	LOP	Asserted
580	02/04/19	16:14:25.834	LOP	Deasserted
579	02/05/19	15:25:36.392	LOP	Asserted
578	02/05/19	15:25:36.462	LOP	Deasserted
577	02/08/19	11:29:04.994	IN101	Deasserted
576	02/08/19	16:21:09.235	IN101	Asserted
575	03/06/19	07:28:41.929	LOP	Asserted
574	03/06/19	07:28:42.179	LOP	Deasserted
573	03/09/19	18:09:53.204	LOP	Asserted
572	03/09/19	18:09:53.415	LOP	Deasserted
571	03/09/19	18:10:49.074	LOP	Asserted
570	03/09/19	18:10:49.466	LOP	Deasserted
569	03/10/19	00:22:55.639	LOP	Asserted
568	03/10/19	00:22:55.984	LOP	Deasserted
567	04/03/19	15:36:53.641	51G	Asserted
566	04/03/19	15:36:53.661	Z2G	Asserted
565	04/03/19	15:36:53.921	51GT	Asserted
564	04/03/19	15:36:53.921	TRIP	Asserted
563	04/03/19	15:36:53.921	OUT101	Asserted
562	04/03/19	15:36:53.921	OUT102	Asserted
561	04/03/19	15:36:53.946	IN101	Deasserted
560	04/03/19	15:36:53.956	Z2G	Deasserted
559	04/03/19	15:36:53.981	51G	Deasserted
558	04/03/19	15:36:54.001	51GT	Deasserted
557	04/03/19	15:36:54.101	TRIP	Deasserted
556	04/03/19	15:36:54.101	OUT101	Deasserted
555	04/03/19	15:36:54.101	OUT102	Deasserted

554	04/03/19	15:36:56.168	IN101	Asserted
553	04/03/19	20:05:09.812	LOP	Asserted
552	04/03/19	20:05:10.092	LOP	Deasserted
551	04/04/19	03:16:31.874	LOP	Asserted
550	04/04/19	03:16:32.114	LOP	Deasserted
549	04/28/19	22:24:35.269	51G	Asserted
548	04/28/19	22:24:35.289	Z2G	Asserted
547	04/28/19	22:24:35.579	51GT	Asserted
546	04/28/19	22:24:35.579	TRIP	Asserted
545	04/28/19	22:24:35.579	OUT101	Asserted
544	04/28/19	22:24:35.579	OUT102	Asserted
543	04/28/19	22:24:35.609	IN101	Deasserted
542	04/28/19	22:24:35.624	Z2G	Deasserted
541	04/28/19	22:24:35.649	51G	Deasserted
540	04/28/19	22:24:35.669	51GT	Deasserted
539	04/28/19	22:24:35.759	TRIP	Deasserted
538	04/28/19	22:24:35.759	OUT101	Deasserted
537	04/28/19	22:24:35.759	OUT102	Deasserted
536	04/28/19	22:24:37.836	IN101	Asserted
535	04/28/19	22:24:38.211	51G	Asserted
534	04/28/19	22:24:38.231	Z2G	Asserted
533	04/28/19	22:24:38.511	51GT	Asserted
532	04/28/19	22:24:38.511	TRIP	Asserted
531	04/28/19	22:24:38.511	OUT101	Asserted
530	04/28/19	22:24:38.511	OUT102	Asserted
529	04/28/19	22:24:38.541	IN101	Deasserted
528	04/28/19	22:24:38.556	Z2G	Deasserted
527	04/28/19	22:24:38.581	51G	Deasserted
526	04/28/19	22:24:38.601	51GT	Deasserted
525	04/28/19	22:24:38.691	TRIP	Deasserted
524	04/28/19	22:24:38.691	OUT101	Deasserted
523	04/28/19	22:24:38.691	OUT102	Deasserted
522	04/29/19	02:08:11.898	IN101	Asserted
521	04/29/19	02:08:11.903	51G	Asserted
520	04/29/19	02:08:11.918	Z2G	Asserted
519	04/29/19	02:08:12.204	51GT	Asserted
518	04/29/19	02:08:12.204	TRIP	Asserted
517	04/29/19	02:08:12.204	OUT101	Asserted
516	04/29/19	02:08:12.204	OUT102	Asserted
515	04/29/19	02:08:12.229	IN101	Deasserted
514	04/29/19	02:08:12.239	Z2G	Deasserted
513	04/29/19	02:08:12.254	51G	Deasserted
512	04/29/19	02:08:12.274	51GT	Deasserted
511	04/29/19	02:08:12.384	TRIP	Deasserted
510	04/29/19	02:08:12.384	OUT101	Deasserted
509	04/29/19	02:08:12.384	OUT102	Deasserted
508	04/29/19	15:42:44.372	IN101	Asserted
507	04/29/19	15:44:03.543	IN101	Deasserted
506	04/29/19	15:45:31.571	IN101	Asserted
505	05/03/19	10:14:47.172	LOP	Asserted
504	05/03/19	10:14:47.377	LOP	Deasserted
503	05/23/19	15:25:26.441	LOP	Asserted
502	05/23/19	15:25:26.721	LOP	Deasserted
501	06/05/19	14:05:18.858	LOP	Asserted

500	06/05/19	14:05:19.123	LOP	Deasserted
499	06/09/19	18:27:52.258	LOP	Asserted
498	06/09/19	18:27:52.502	LOP	Deasserted
497	06/21/19	19:31:16.998	LOP	Asserted
496	06/21/19	19:31:17.559	LOP	Deasserted
495	07/03/19	13:36:21.668	LOP	Asserted
494	07/03/19	13:36:22.690	LOP	Deasserted
493	07/17/19	11:53:02.656	LOP	Asserted
492	07/17/19	11:53:02.896	LOP	Deasserted
491	07/21/19	12:13:28.814	LOP	Asserted
490	07/21/19	12:13:29.079	LOP	Deasserted
489	10/21/19	06:27:24.155	LOP	Asserted
488	10/21/19	06:27:24.405	LOP	Deasserted
487	10/28/19	06:27:53.010	LOP	Asserted
486	10/28/19	06:27:53.360	LOP	Deasserted
485	11/11/19	10:55:21.795	LOP	Asserted
484	11/11/19	10:55:22.080	LOP	Deasserted
483	11/11/19	10:55:23.357	LOP	Asserted
482	11/11/19	12:24:59.231	LOP	Deasserted
481	11/11/19	15:05:32.967	LOP	Asserted
480	11/11/19	17:02:21.692	LOP	Deasserted
479	11/24/19	17:54:28.250	LOP	Asserted
478	11/24/19	17:54:28.456	LOP	Deasserted
477	11/29/19	08:50:46.936	LOP	Asserted
476	11/29/19	08:50:47.196	LOP	Deasserted
475	12/13/19	21:23:37.351	LOP	Asserted
474	12/13/19	21:23:37.612	LOP	Deasserted
473	12/19/19	14:11:57.705	LOP	Asserted
472	12/19/19	14:11:57.995	LOP	Deasserted
471	01/14/20	13:48:58.102	IN101	Deasserted
470	01/14/20	13:48:58.132	IN101	Asserted
469	01/14/20	13:48:58.177	IN101	Deasserted
468	01/14/20	13:48:58.192	IN101	Asserted
467	01/14/20	13:51:26.880	IN101	Deasserted
466	01/14/20	13:51:26.885	IN101	Asserted
465	01/14/20	13:51:33.040	IN101	Deasserted
464	01/14/20	13:51:33.050	IN101	Asserted
463	01/14/20	13:51:34.240	IN101	Deasserted
462	01/14/20	13:51:34.245	IN101	Asserted
461	01/14/20	13:51:34.540	IN101	Deasserted
460	01/14/20	13:51:39.257	Relay newly powered up	
459	01/17/20	15:54:29.918	LOP	Asserted
458	01/17/20	15:54:30.188	LOP	Deasserted
457	02/01/20	13:13:28.376	LOP	Asserted
456	02/01/20	13:13:29.235	LOP	Deasserted
455	02/10/20	08:40:56.574	LOP	Asserted
454	02/10/20	08:40:56.828	LOP	Deasserted
453	02/21/20	09:31:03.539	LOP	Asserted
452	02/21/20	09:31:03.749	LOP	Deasserted
451	03/04/20	15:14:17.951	LOP	Asserted
450	03/04/20	15:14:18.206	LOP	Deasserted
449	03/04/20	15:14:19.155	LOP	Asserted
448	03/04/20	15:14:19.406	LOP	Deasserted
447	03/04/20	15:14:23.920	LOP	Asserted

446	03/04/20	15:14:24.185	LOP	Deasserted
445	03/04/20	15:18:28.528	LOP	Asserted
444	03/04/20	16:05:05.920	LOP	Deasserted
443	03/22/20	12:57:51.643	LOP	Asserted
442	03/22/20	12:57:51.853	LOP	Deasserted
441	04/25/20	15:42:53.000	LOP	Asserted
440	04/25/20	15:42:53.270	LOP	Deasserted
439	05/02/20	12:59:26.430	LOP	Asserted
438	05/02/20	12:59:26.760	LOP	Deasserted
437	05/09/20	19:09:01.408	51G	Asserted
436	05/09/20	19:09:01.423	Z2G	Asserted
435	05/09/20	19:09:01.648	51GT	Asserted
434	05/09/20	19:09:01.648	TRIP	Asserted
433	05/09/20	19:09:01.648	OUT101	Asserted
432	05/09/20	19:09:01.648	OUT102	Asserted
431	05/09/20	19:09:01.668	IN101	Deasserted
430	05/09/20	19:09:01.688	Z2G	Deasserted
429	05/09/20	19:09:01.698	51G	Deasserted
428	05/09/20	19:09:01.718	51GT	Deasserted
427	05/09/20	19:09:01.828	TRIP	Deasserted
426	05/09/20	19:09:01.828	OUT101	Deasserted
425	05/09/20	19:09:01.828	OUT102	Deasserted
424	05/09/20	19:09:03.890	IN101	Asserted
423	05/09/20	19:09:04.601	51G	Asserted
422	05/09/20	19:09:04.606	Z2G	Asserted
421	05/09/20	19:09:04.831	51GT	Asserted
420	05/09/20	19:09:04.831	TRIP	Asserted
419	05/09/20	19:09:04.831	OUT101	Asserted
418	05/09/20	19:09:04.831	OUT102	Asserted
417	05/09/20	19:09:04.861	IN101	Deasserted
416	05/09/20	19:09:04.881	Z2G	Deasserted
415	05/09/20	19:09:04.891	51G	Deasserted
414	05/09/20	19:09:04.911	51GT	Deasserted
413	05/09/20	19:09:05.011	TRIP	Deasserted
412	05/09/20	19:09:05.011	OUT101	Deasserted
411	05/09/20	19:09:05.011	OUT102	Deasserted
410	05/09/20	21:45:17.015	IN101	Asserted
409	05/09/20	21:46:36.971	IN101	Deasserted
408	05/09/20	21:47:11.392	IN101	Asserted
407	06/06/20	15:07:40.780	51G	Asserted
406	06/06/20	15:07:40.790	Z2G	Asserted
405	06/06/20	15:07:41.019	51GT	Asserted
404	06/06/20	15:07:41.019	TRIP	Asserted
403	06/06/20	15:07:41.019	OUT101	Asserted
402	06/06/20	15:07:41.019	OUT102	Asserted
401	06/06/20	15:07:41.049	IN101	Deasserted
400	06/06/20	15:07:41.064	Z2G	Deasserted
399	06/06/20	15:07:41.079	51G	Deasserted
398	06/06/20	15:07:41.099	51GT	Deasserted
397	06/06/20	15:07:41.199	TRIP	Deasserted
396	06/06/20	15:07:41.199	OUT101	Deasserted
395	06/06/20	15:07:41.199	OUT102	Deasserted
394	06/06/20	15:07:43.265	IN101	Asserted
393	06/06/20	15:07:45.051	51G	Asserted

392	06/06/20	15:07:45.066	Z2G	Asserted
391	06/06/20	15:07:45.301	51GT	Asserted
390	06/06/20	15:07:45.301	TRIP	Asserted
389	06/06/20	15:07:45.301	OUT101	Asserted
388	06/06/20	15:07:45.301	OUT102	Asserted
387	06/06/20	15:07:45.331	IN101	Deasserted
386	06/06/20	15:07:45.346	Z2G	Deasserted
385	06/06/20	15:07:45.361	51G	Deasserted
384	06/06/20	15:07:45.381	51GT	Deasserted
383	06/06/20	15:07:45.481	TRIP	Deasserted
382	06/06/20	15:07:45.481	OUT101	Deasserted
381	06/06/20	15:07:45.481	OUT102	Deasserted
380	06/06/20	18:13:42.683	IN101	Asserted
379	06/09/20	20:34:33.915	IN101	Deasserted
378	06/09/20	21:00:45.939	IN101	Asserted
377	06/11/20	08:44:53.356	51G	Asserted
376	06/11/20	08:44:53.386	51G	Deasserted
375	06/15/20	21:16:59.614	IN101	Deasserted
374	06/15/20	22:16:34.858	IN101	Asserted
373	06/17/20	11:10:56.728	LOP	Asserted
372	06/17/20	15:33:04.405	LOP	Deasserted
371	06/18/20	03:31:45.818	LOP	Asserted
370	06/18/20	03:31:46.023	LOP	Deasserted
369	06/28/20	01:10:10.246	LOP	Asserted
368	06/28/20	01:10:10.576	LOP	Deasserted
367	06/28/20	01:27:08.609	LOP	Asserted
366	06/28/20	01:27:08.949	LOP	Deasserted
365	06/28/20	01:36:10.218	LOP	Asserted
364	06/28/20	01:36:10.553	LOP	Deasserted
363	06/28/20	01:55:17.018	LOP	Asserted
362	06/28/20	01:55:17.362	LOP	Deasserted
361	06/28/20	02:15:00.280	LOP	Asserted
360	06/28/20	02:15:00.625	LOP	Deasserted
359	06/28/20	02:20:06.708	LOP	Asserted
358	06/28/20	02:20:07.043	LOP	Deasserted
357	06/28/20	02:21:29.736	LOP	Asserted
356	06/28/20	02:21:30.070	LOP	Deasserted
355	07/08/20	07:13:32.518	LOP	Asserted
354	07/08/20	07:13:32.788	LOP	Deasserted
353	07/08/20	14:13:03.494	LOP	Asserted
352	07/08/20	14:13:03.774	LOP	Deasserted
351	07/08/20	14:13:06.143	LOP	Asserted
350	07/08/20	14:30:08.890	LOP	Deasserted
349	07/08/20	14:30:32.489	LOP	Asserted
348	07/08/20	14:30:33.029	LOP	Deasserted
347	07/08/20	14:33:00.039	LOP	Asserted
346	07/08/20	14:33:00.595	LOP	Deasserted
345	07/09/20	10:44:51.549	51G	Asserted
344	07/09/20	10:44:51.569	Z2G	Asserted
343	07/09/20	10:44:51.799	51GT	Asserted
342	07/09/20	10:44:51.799	TRIP	Asserted
341	07/09/20	10:44:51.799	OUT101	Asserted
340	07/09/20	10:44:51.799	OUT102	Asserted
339	07/09/20	10:44:51.829	IN101	Deasserted

338	07/09/20	10:44:51.849	Z2G	Deasserted
337	07/09/20	10:44:51.869	51G	Deasserted
336	07/09/20	10:44:51.889	51GT	Deasserted
335	07/09/20	10:44:51.979	TRIP	Deasserted
334	07/09/20	10:44:51.979	OUT101	Deasserted
333	07/09/20	10:44:51.979	OUT102	Deasserted
332	07/09/20	10:44:54.048	IN101	Asserted
331	07/09/20	10:44:56.597	51G	Asserted
330	07/09/20	10:44:56.607	Z2G	Asserted
329	07/09/20	10:44:56.837	51GT	Asserted
328	07/09/20	10:44:56.837	TRIP	Asserted
327	07/09/20	10:44:56.837	OUT101	Asserted
326	07/09/20	10:44:56.837	OUT102	Asserted
325	07/09/20	10:44:56.867	IN101	Deasserted
324	07/09/20	10:44:56.887	Z2G	Deasserted
323	07/09/20	10:44:56.907	51G	Deasserted
322	07/09/20	10:44:56.927	51GT	Deasserted
321	07/09/20	10:44:57.017	TRIP	Deasserted
320	07/09/20	10:44:57.017	OUT101	Deasserted
319	07/09/20	10:44:57.017	OUT102	Deasserted
318	07/09/20	13:06:03.349	IN101	Asserted
317	07/18/20	01:14:10.217	LOP	Asserted
316	07/18/20	01:14:10.477	LOP	Deasserted
315	07/18/20	01:22:10.791	LOP	Asserted
314	07/18/20	01:22:11.050	LOP	Deasserted
313	07/18/20	01:34:43.214	LOP	Asserted
312	07/18/20	01:34:43.498	LOP	Deasserted
311	07/18/20	02:04:30.046	51G	Asserted
310	07/18/20	02:04:30.366	51GT	Asserted
309	07/18/20	02:04:30.366	TRIP	Asserted
308	07/18/20	02:04:30.366	OUT101	Asserted
307	07/18/20	02:04:30.366	OUT102	Asserted
306	07/18/20	02:04:30.396	IN101	Deasserted
305	07/18/20	02:04:30.426	51G	Deasserted
304	07/18/20	02:04:30.446	51GT	Deasserted
303	07/18/20	02:04:30.546	TRIP	Deasserted
302	07/18/20	02:04:30.546	OUT101	Deasserted
301	07/18/20	02:04:30.546	OUT102	Deasserted
300	07/18/20	02:04:32.616	IN101	Asserted
299	07/18/20	02:04:32.837	51G	Asserted
298	07/18/20	02:04:33.157	51GT	Asserted
297	07/18/20	02:04:33.157	TRIP	Asserted
296	07/18/20	02:04:33.157	OUT101	Asserted
295	07/18/20	02:04:33.157	OUT102	Asserted
294	07/18/20	02:04:33.187	IN101	Deasserted
293	07/18/20	02:04:33.217	51G	Deasserted
292	07/18/20	02:04:33.237	51GT	Deasserted
291	07/18/20	02:04:33.337	TRIP	Deasserted
290	07/18/20	02:04:33.337	OUT101	Deasserted
289	07/18/20	02:04:33.337	OUT102	Deasserted
288	07/18/20	12:58:28.054	IN101	Asserted
287	07/20/20	10:00:15.152	LOP	Asserted
286	07/20/20	10:00:15.402	LOP	Deasserted
285	07/20/20	10:00:16.423	LOP	Asserted

284	07/20/20	10:30:45.576	IN101	Deasserted
283	07/20/20	11:13:05.496	LOP	Deasserted
282	07/20/20	11:13:54.446	IN101	Asserted
281	08/27/20	09:35:05.653	LOP	Asserted
280	08/27/20	09:35:05.904	LOP	Deasserted
279	08/28/20	10:32:46.752	LOP	Asserted
278	08/28/20	10:32:47.073	LOP	Deasserted
277	11/03/20	17:38:15.553	LOP	Asserted
276	11/03/20	17:38:15.858	LOP	Deasserted
275	11/03/20	17:38:16.063	LOP	Asserted
274	11/03/20	17:38:16.457	LOP	Deasserted
273	11/03/20	17:38:16.597	LOP	Asserted
272	11/03/20	17:38:16.882	LOP	Deasserted
271	11/20/20	04:53:29.897	LOP	Asserted
270	11/20/20	04:53:30.107	LOP	Deasserted
269	11/22/20	14:28:56.951	LOP	Asserted
268	11/22/20	14:28:57.201	LOP	Deasserted
267	12/24/20	08:52:58.609	LOP	Asserted
266	12/24/20	08:52:58.854	LOP	Deasserted
265	01/07/21	08:57:11.095	LOP	Asserted
264	01/07/21	08:57:11.440	LOP	Deasserted
263	02/03/21	13:34:04.233	51G	Asserted
262	02/03/21	13:34:06.023	51G	Deasserted
261	02/26/21	17:49:46.613	LOP	Asserted
260	02/26/21	17:49:46.683	LOP	Deasserted
259	03/08/21	14:36:02.561	LOP	Asserted
258	03/08/21	14:36:02.641	LOP	Deasserted
257	03/08/21	14:36:03.683	LOP	Asserted
256	03/08/21	14:36:03.773	LOP	Deasserted
255	03/17/21	10:34:10.326	LOP	Asserted
254	03/17/21	10:34:10.566	LOP	Deasserted
253	03/25/21	11:28:12.371	IN101	Deasserted
252	03/25/21	18:18:54.259	IN101	Asserted
251	04/25/21	13:09:39.885	LOP	Asserted
250	04/25/21	13:11:48.436	IN101	Deasserted
249	04/25/21	23:58:48.369	LOP	Deasserted
248	04/25/21	23:59:06.471	IN101	Asserted
247	05/27/21	16:50:51.548	LOP	Asserted
246	05/27/21	16:50:52.253	LOP	Deasserted
245	05/27/21	19:04:03.846	LOP	Asserted
244	05/27/21	19:04:04.121	LOP	Deasserted
243	05/27/21	19:04:45.878	LOP	Asserted
242	05/27/21	19:04:46.138	LOP	Deasserted
241	05/27/21	19:06:20.408	LOP	Asserted
240	05/27/21	19:06:20.673	LOP	Deasserted
239	05/27/21	19:08:30.375	LOP	Asserted
238	05/27/21	19:08:30.640	LOP	Deasserted
237	08/11/21	19:50:13.057	LOP	Asserted
236	08/11/21	19:59:41.849	LOP	Deasserted
235	08/14/21	13:58:03.891	LOP	Asserted
234	08/14/21	13:58:04.986	LOP	Deasserted
233	08/14/21	13:58:05.046	LOP	Asserted
232	08/14/21	13:58:05.330	LOP	Deasserted
231	08/14/21	13:58:10.768	LOP	Asserted

230	08/14/21	14:34:21.478	LOP	Deasserted
229	08/14/21	14:45:00.187	LOP	Asserted
228	08/14/21	14:45:00.417	LOP	Deasserted
227	08/14/21	14:51:35.043	LOP	Asserted
226	08/14/21	14:51:35.263	LOP	Deasserted
225	08/14/21	14:54:21.956	LOP	Asserted
224	08/14/21	14:54:22.166	LOP	Deasserted
223	08/14/21	14:55:41.160	LOP	Asserted
222	08/14/21	14:55:41.370	LOP	Deasserted
221	08/16/21	07:11:09.464	LOP	Asserted
220	08/16/21	07:11:09.669	LOP	Deasserted
219	08/26/21	22:40:59.581	LOP	Asserted
218	08/26/21	22:40:59.931	LOP	Deasserted
217	09/21/21	20:40:54.933	LOP	Asserted
216	09/21/21	20:40:55.247	LOP	Deasserted
215	09/21/21	20:41:01.137	LOP	Asserted
214	09/21/21	20:41:01.461	LOP	Deasserted
213	09/21/21	20:53:29.798	LOP	Asserted
212	09/21/21	20:53:30.118	LOP	Deasserted
211	10/20/21	07:40:17.218	LOP	Asserted
210	10/20/21	07:40:17.633	LOP	Deasserted
209	10/20/21	07:49:40.917	LOP	Asserted
208	10/20/21	07:49:42.302	LOP	Deasserted
207	10/20/21	11:57:57.903	LOP	Asserted
206	10/20/21	11:57:59.308	LOP	Deasserted
205	11/02/21	11:43:34.366	LOP	Asserted
204	11/02/21	11:43:34.596	LOP	Deasserted
203	12/07/21	07:52:51.559	LOP	Asserted
202	12/07/21	07:52:51.794	LOP	Deasserted
201	12/07/21	16:28:24.298	LOP	Asserted
200	12/07/21	16:28:24.557	LOP	Deasserted
199	01/19/22	05:34:07.796	LOP	Asserted
198	01/19/22	05:34:07.866	LOP	Deasserted
197	01/19/22	05:47:10.654	LOP	Asserted
196	01/19/22	05:47:10.865	LOP	Deasserted
195	01/30/22	09:36:58.088	LOP	Asserted
194	01/30/22	09:36:58.423	LOP	Deasserted
193	02/01/22	14:26:32.383	LOP	Asserted
192	02/01/22	14:26:32.612	LOP	Deasserted
191	02/13/22	01:05:37.446	LOP	Asserted
190	02/13/22	01:05:37.651	LOP	Deasserted
189	02/13/22	01:07:10.067	LOP	Asserted
188	02/13/22	01:07:10.277	LOP	Deasserted
187	02/13/22	01:07:11.230	LOP	Asserted
186	02/13/22	01:07:11.485	LOP	Deasserted
185	02/21/22	15:01:19.227	LOP	Asserted
184	02/21/22	15:47:43.118	LOP	Deasserted
183	02/21/22	21:34:27.299	LOP	Asserted
182	02/21/22	21:34:27.509	LOP	Deasserted
181	02/23/22	19:10:17.205	LOP	Asserted
180	02/23/22	19:10:17.414	LOP	Deasserted
179	02/24/22	00:03:14.993	LOP	Asserted
178	02/24/22	00:03:15.347	LOP	Deasserted
177	02/26/22	10:13:24.614	LOP	Asserted

176	02/26/22	10:13:24.953	LOP	Deasserted
175	03/11/22	21:11:17.961	LOP	Asserted
174	03/11/22	21:11:20.076	LOP	Deasserted
173	03/27/22	12:09:12.367	IN101	Deasserted
172	03/27/22	15:44:52.751	IN101	Asserted
171	03/27/22	16:08:42.190	IN101	Deasserted
170	03/27/22	16:08:53.929	IN101	Asserted
169	03/27/22	16:09:38.596	IN101	Deasserted
168	03/27/22	16:22:50.191	IN101	Asserted
167	03/27/22	16:22:51.181	IN101	Deasserted
166	03/27/22	17:23:37.278	IN101	Asserted
165	03/27/22	17:23:44.648	IN101	Deasserted
164	03/27/22	17:26:23.449	IN101	Asserted
163	03/27/22	17:26:34.318	IN101	Deasserted
162	03/27/22	17:28:52.200	IN101	Asserted
161	03/27/22	17:29:22.369	IN101	Deasserted
160	03/27/22	17:29:35.808	IN101	Asserted
159	03/27/22	17:29:49.352	IN101	Deasserted
158	03/27/22	17:30:24.030	IN101	Asserted
157	03/27/22	17:41:10.158	IN101	Deasserted
156	03/27/22	17:41:14.498	IN101	Asserted
155	03/27/22	17:41:24.292	IN101	Deasserted
154	03/27/22	19:07:48.618	IN101	Asserted
153	04/04/22	13:52:25.394	51G	Asserted
152	04/04/22	13:52:25.399	Z2G	Asserted
151	04/04/22	13:52:25.573	51GT	Asserted
150	04/04/22	13:52:25.573	TRIP	Asserted
149	04/04/22	13:52:25.573	OUT101	Asserted
148	04/04/22	13:52:25.573	OUT102	Asserted
147	04/04/22	13:52:25.603	IN101	Deasserted
146	04/04/22	13:52:25.623	Z2G	Deasserted
145	04/04/22	13:52:25.643	51G	Deasserted
144	04/04/22	13:52:25.663	51GT	Deasserted
143	04/04/22	13:52:25.753	TRIP	Deasserted
142	04/04/22	13:52:25.753	OUT101	Deasserted
141	04/04/22	13:52:25.753	OUT102	Deasserted
140	04/04/22	13:52:27.823	IN101	Asserted
139	04/07/22	22:50:02.349	LOP	Asserted
138	04/07/22	22:50:02.695	LOP	Deasserted
137	04/16/22	14:10:56.702	LOP	Asserted
136	04/16/22	14:10:57.699	LOP	Deasserted
135	04/27/22	15:06:51.021	LOP	Asserted
134	04/27/22	15:06:51.225	LOP	Deasserted
133	04/27/22	15:06:57.158	LOP	Asserted
132	04/27/22	15:06:57.368	LOP	Deasserted
131	06/12/22	13:41:43.660	IN101	Deasserted
130	06/12/22	19:05:59.876	IN101	Asserted
129	06/16/22	14:46:11.504	LOP	Asserted
128	06/16/22	14:46:11.714	LOP	Deasserted
127	06/23/22	21:41:39.780	LOP	Asserted
126	06/23/22	21:41:40.036	LOP	Deasserted
125	07/01/22	00:56:34.165	LOP	Asserted
124	07/01/22	00:56:34.420	LOP	Deasserted
123	07/01/22	01:28:43.449	LOP	Asserted

122	07/01/22	01:28:43.704	LOP	Deasserted
121	07/02/22	18:44:11.044	LOP	Asserted
120	07/02/22	18:44:11.299	LOP	Deasserted
119	07/02/22	18:44:13.174	LOP	Asserted
118	07/02/22	18:44:13.429	LOP	Deasserted
117	07/02/22	18:52:28.641	LOP	Asserted
116	07/02/22	18:52:28.885	LOP	Deasserted
115	07/02/22	18:52:33.712	LOP	Asserted
114	07/02/22	18:52:33.956	LOP	Deasserted
113	07/04/22	11:32:42.748	LOP	Asserted
112	07/04/22	11:32:42.988	LOP	Deasserted
111	07/04/22	19:08:31.434	LOP	Asserted
110	07/04/22	19:08:31.755	LOP	Deasserted
109	07/05/22	06:23:13.802	LOP	Asserted
108	07/05/22	06:23:14.046	LOP	Deasserted
107	07/20/22	06:12:23.389	LOP	Asserted
106	07/20/22	06:12:23.594	LOP	Deasserted
105	07/22/22	11:55:16.376	LOP	Asserted
104	07/22/22	11:55:16.625	LOP	Deasserted
103	08/07/22	03:55:22.044	LOP	Asserted
102	08/07/22	03:55:22.259	LOP	Deasserted
101	08/07/22	07:56:36.921	LOP	Asserted
100	08/07/22	07:56:37.266	LOP	Deasserted
99	08/07/22	07:56:40.331	LOP	Asserted
98	08/07/22	07:56:40.706	LOP	Deasserted
97	08/14/22	12:33:57.081	LOP	Asserted
96	08/14/22	12:33:57.340	LOP	Deasserted
95	08/24/22	14:54:15.220	LOP	Asserted
94	08/24/22	14:54:15.471	LOP	Deasserted
93	11/15/22	12:38:26.021	LOP	Asserted
92	11/15/22	12:38:26.091	LOP	Deasserted
91	11/15/22	12:38:31.532	LOP	Asserted
90	11/15/22	13:11:34.619	LOP	Deasserted
89	12/15/22	20:53:02.631	IN101	Deasserted
88	12/15/22	20:55:56.288	IN101	Asserted
87	12/25/22	16:20:19.056	LOP	Asserted
86	12/25/22	16:20:19.107	LOP	Deasserted
85	12/25/22	16:21:30.125	LOP	Asserted
84	12/25/22	16:21:30.185	LOP	Deasserted
83	12/25/22	16:21:30.636	LOP	Asserted
82	12/25/22	16:21:30.696	LOP	Deasserted
81	12/25/22	16:24:40.201	LOP	Asserted
80	12/25/22	16:24:40.236	LOP	Deasserted
79	01/02/23	10:00:37.999	LOP	Asserted
78	01/02/23	10:00:38.209	LOP	Deasserted
77	01/24/23	02:09:44.120	LOP	Asserted
76	01/24/23	02:09:44.336	LOP	Deasserted
75	01/24/23	02:43:35.619	LOP	Asserted
74	01/24/23	02:43:36.283	LOP	Deasserted
73	01/24/23	11:11:50.781	LOP	Asserted
72	01/24/23	11:11:52.790	LOP	Deasserted
71	02/03/23	21:19:59.436	LOP	Asserted
70	02/03/23	21:19:59.647	LOP	Deasserted
69	02/04/23	01:38:16.761	LOP	Asserted

68	02/04/23	01:38:16.966	LOP	Deasserted
67	02/09/23	01:15:09.778	LOP	Asserted
66	02/09/23	01:15:09.858	LOP	Deasserted
65	02/18/23	05:30:17.385	LOP	Asserted
64	02/18/23	05:30:17.754	LOP	Deasserted
63	02/28/23	14:22:16.177	LOP	Asserted
62	02/28/23	14:22:16.457	LOP	Deasserted
61	03/02/23	10:17:34.078	LOP	Asserted
60	03/02/23	10:17:34.328	LOP	Deasserted
59	03/06/23	16:59:27.883	LOP	Asserted
58	03/06/23	16:59:29.973	LOP	Deasserted
57	04/29/23	05:35:27.297	51G	Asserted
56	04/29/23	05:35:27.307	Z2G	Asserted
55	04/29/23	05:35:27.507	51GT	Asserted
54	04/29/23	05:35:27.507	TRIP	Asserted
53	04/29/23	05:35:27.507	OUT101	Asserted
52	04/29/23	05:35:27.507	OUT102	Asserted
51	04/29/23	05:35:27.537	IN101	Deasserted
50	04/29/23	05:35:27.547	Z1T	Asserted
49	04/29/23	05:35:27.547	Z1G	Asserted
48	04/29/23	05:35:27.557	Z1T	Deasserted
47	04/29/23	05:35:27.557	Z1G	Deasserted
46	04/29/23	05:35:27.562	Z2G	Deasserted
45	04/29/23	05:35:27.577	51G	Deasserted
44	04/29/23	05:35:27.597	51GT	Deasserted
43	04/29/23	05:35:27.687	TRIP	Deasserted
42	04/29/23	05:35:27.687	OUT101	Deasserted
41	04/29/23	05:35:27.687	OUT102	Deasserted
40	04/29/23	05:35:29.770	IN101	Asserted
39	04/29/23	05:35:29.775	51G	Asserted
38	04/29/23	05:35:29.780	SOTFT	Asserted
37	04/29/23	05:35:29.780	TRIP	Asserted
36	04/29/23	05:35:29.780	OUT101	Asserted
35	04/29/23	05:35:29.780	OUT102	Asserted
34	04/29/23	05:35:29.790	M2P	Asserted
33	04/29/23	05:35:29.795	Z1T	Asserted
32	04/29/23	05:35:29.795	M1P	Asserted
31	04/29/23	05:35:29.800	51P	Asserted
30	04/29/23	05:35:29.810	IN101	Deasserted
29	04/29/23	05:35:29.830	Z1T	Deasserted
28	04/29/23	05:35:29.830	M1P	Deasserted
27	04/29/23	05:35:29.835	M2P	Deasserted
26	04/29/23	05:35:29.840	SOTFT	Deasserted
25	04/29/23	05:35:29.850	51P	Deasserted
24	04/29/23	05:35:29.855	51G	Deasserted
23	04/29/23	05:35:29.960	TRIP	Deasserted
22	04/29/23	05:35:29.960	OUT101	Deasserted
21	04/29/23	05:35:29.960	OUT102	Deasserted
20	04/29/23	05:39:17.590	IN101	Asserted
19	04/29/23	05:39:17.595	51G	Asserted
18	04/29/23	05:39:17.600	SOTFT	Asserted
17	04/29/23	05:39:17.600	TRIP	Asserted
16	04/29/23	05:39:17.600	OUT101	Asserted
15	04/29/23	05:39:17.600	OUT102	Asserted

14	04/29/23	05:39:17.610	Z1T	Asserted
13	04/29/23	05:39:17.610	M2P	Asserted
12	04/29/23	05:39:17.610	M1P	Asserted
11	04/29/23	05:39:17.610	51P	Asserted
10	04/29/23	05:39:17.630	IN101	Deasserted
9	04/29/23	05:39:17.640	Z1T	Deasserted
8	04/29/23	05:39:17.640	M1P	Deasserted
7	04/29/23	05:39:17.645	M2P	Deasserted
6	04/29/23	05:39:17.650	SOTFT	Deasserted
5	04/29/23	05:39:17.660	51P	Deasserted
4	04/29/23	05:39:17.665	51G	Deasserted
3	04/29/23	05:39:17.780	TRIP	Deasserted
2	04/29/23	05:39:17.780	OUT101	Deasserted
1	04/29/23	05:39:17.780	OUT102	Deasserted

=>met

21/21N 52B2 S2
SE AIHUAPI

Date: 04/29/23 Time: 10:02:00.701

	A	B	C	N	G	
I MAG (A)	0.000	0.002	0.006	0.006	0.007	
I ANG (DEG)	0.00	154.00	-161.00	161.13	-173.99	
	A	B	C	S		
V MAG (KV)	38.367	38.659	38.515	0.008		
V ANG (DEG)	0.00	-120.02	119.58	22.82		
	A	B	C	3P		
MW	0.000	0.000	0.000	0.000		
MVAR	0.000	0.000	-0.000	-0.000		
PF	1.000	0.070	0.184	0.357		
	LAG	LAG	LEAD	LEAD		
	I1	3I2	3I0	V1	V2	3V0
MAG	0.001	0.007	0.007	38.513	0.177	0.027
ANG (DEG)	68.46	-20.73	-173.99	-0.15	148.95	54.27
FREQ (Hz)	50.13		VDC (V)	134.8		

=>sta

21/21N 52B2 S2
SE AIHUAPI

Date: 04/29/23 Time: 10:02:02.350

FID=SEL-311C-1-R505-V0-Z101101-D20130620 CID=D6A4

SELF TESTS

W=Warn F=Fail

	IA	IB	IC	IN	VA	VB	VC	VS	MOF
OS	1	1	1	1	1	1	1	1	1
OSH	-0	0	-0	0					

	15V_PS	5V_REG	3.3V_REG
PS	14.94	5.00	3.28

	RAM	ROM	FPGA	EEPROM	FLASH	A/D	USB_BRD	COM_BRD	
IO_BRD	OK	OK	OK	OK	OK	OK	NA	OK	NA
	TEMP	RTC	HMI						
	41.2	OK	OK						

Relay Enabled

=>

SER 1

52E1 CREO
LOS NEGROS

Date: 04/29/2023 Time: 18:47:38.059
Time Source: external

FID=SEL-651RA-R104-V2-Z004001-D20220510 CID=1ED0

#	Date	Time	Element	State
1	04/29/2023	07:15:48.682	OUT106	Deasserted

=>HIS

52E1 CREO
LOS NEGROS

Date: 04/29/2023 Time: 18:47:41.701
Time Source: external

#	DATE	TIME	EVENT	LOCAT	CURR	FREQ	GST RHR	TARGETS COLUMN 1
COLUMN 2								
1	04/29/2023	07:15:48.507	ER	\$\$\$\$\$	22	50.0	100	110000000000
100000111000								
2	04/29/2023	05:42:29.106	ER	\$\$\$\$\$	65	50.0	100	110000000000
100000111000								
3	04/28/2023	15:09:39.464	BG	61.7	140	50.0	100	110000000000
100000111000								
4	04/28/2023	11:58:52.793	AB	129	137	50.2	100	110000000000
100000111000								
5	04/28/2023	11:50:50.160	ER	\$\$\$\$\$	60	50.2	100	110000000000
100000111000								
6	04/28/2023	10:45:21.733	ER	\$\$\$\$\$	90	50.1	100	110000000000
100000111000								
7	04/26/2023	10:51:59.563	CA	143	130	50.0	100	110000000000
100000111000								
8	04/24/2023	19:49:53.128	AB	133	147	50.1	100	110000000000
100000111000								
9	04/24/2023	10:55:17.342	BC	72.1	135	49.9	100	110000000000
100000111000								
10	04/22/2023	19:35:55.456	CA	146	143	50.2	100	110000000000
100000111000								
11	04/22/2023	13:14:39.483	ER	\$\$\$\$\$	89	49.8	100	110000000000
100100111000								
12	04/22/2023	13:14:33.079	CG	-9.83	73	49.8	100	110000000000
100100111000								
13	04/21/2023	19:47:24.530	ER	\$\$\$\$\$	104	49.8	100	110000000000
100000111000								
14	04/18/2023	19:43:59.281	CA	129	126	49.9	100	110000000000
100000111000								
15	04/17/2023	20:00:09.493	CA	127	157	50.1	100	110000000000
100000111000								

=>SER 1000

52E1 CREO
LOS NEGROS

Date: 04/29/2023 Time: 18:47:52.260
Time Source: external

FID=SEL-651RA-R104-V2-Z004001-D20220510 CID=1ED0

#	Date	Time	Element	State
1000	02/10/2023	17:25:18.847	LT03	Asserted
999	02/10/2023	17:25:18.847	SV35	Deasserted
998	02/10/2023	17:25:18.847	PB03_PUL	Asserted
997	02/10/2023	17:25:18.847	PB03	Asserted
996	02/10/2023	17:25:18.852	PB03_PUL	Deasserted
995	02/10/2023	17:25:19.142	PB03	Deasserted
994	02/10/2023	17:25:49.935	CC3	Asserted
993	02/10/2023	17:25:49.940	CC3	Deasserted
992	02/10/2023	17:25:49.985	PINC	Asserted
991	02/10/2023	17:25:49.990	52A3P	Asserted
990	02/10/2023	17:25:49.990	OUT104	Asserted
989	02/10/2023	17:25:49.990	OUT105	Deasserted
988	02/10/2023	17:26:19.993	79LO3P	Deasserted
987	02/10/2023	17:26:19.993	79RS3P	Asserted
986	02/10/2023	17:26:19.998	SH23P	Deasserted
985	02/10/2023	17:26:19.998	SH03P	Asserted
984	02/10/2023	17:29:04.364	TRIP3P	Asserted
983	02/10/2023	17:29:04.364	OC3	Asserted
982	02/10/2023	17:29:04.364	79LO3P	Asserted
981	02/10/2023	17:29:04.364	79RS3P	Deasserted
980	02/10/2023	17:29:04.369	OC3	Deasserted
979	02/10/2023	17:29:04.369	SH23P	Asserted
978	02/10/2023	17:29:04.369	SH03P	Deasserted
977	02/10/2023	17:29:04.384	PINC	Deasserted
976	02/10/2023	17:29:04.399	52A3P	Deasserted
975	02/10/2023	17:29:04.399	OUT104	Deasserted
974	02/10/2023	17:29:04.399	OUT105	Asserted
973	02/10/2023	17:29:05.164	TRIP3P	Deasserted
972	02/10/2023	17:29:33.442	LT02	Asserted
971	02/10/2023	17:29:33.442	OUT108	Asserted
970	02/10/2023	17:30:00.076	LT02	Deasserted
969	02/10/2023	17:30:00.076	OUT108	Deasserted
968	02/10/2023	17:30:19.735	RB01	Asserted
967	02/10/2023	17:30:19.740	RB01	Deasserted
966	02/10/2023	17:30:49.538	LT01	Asserted
965	02/10/2023	17:30:49.538	PB01_PUL	Asserted
964	02/10/2023	17:30:49.538	PB01	Asserted
963	02/10/2023	17:30:49.543	PB01_PUL	Deasserted
962	02/10/2023	17:30:49.848	PB01	Deasserted
961	02/10/2023	17:31:08.997	RB02	Asserted
960	02/10/2023	17:31:09.002	RB02	Deasserted
959	02/10/2023	17:31:21.671	LT01	Deasserted
958	02/10/2023	17:31:21.671	PB01_PUL	Asserted
957	02/10/2023	17:31:21.671	PB01	Asserted
956	02/10/2023	17:31:21.676	PB01_PUL	Deasserted
955	02/10/2023	17:31:21.876	PB01	Deasserted
954	02/10/2023	17:31:55.809	CC3	Asserted
953	02/10/2023	17:31:55.814	CC3	Deasserted
952	02/10/2023	17:31:55.859	PINC	Asserted

951	02/10/2023	17:31:55.864	52A3P	Asserted
950	02/10/2023	17:31:55.864	OUT104	Asserted
949	02/10/2023	17:31:55.864	OUT105	Deasserted
948	02/10/2023	17:32:23.117	TRIP3P	Asserted
947	02/10/2023	17:32:23.117	OC3	Asserted
946	02/10/2023	17:32:23.122	OC3	Deasserted
945	02/10/2023	17:32:23.137	PINC	Deasserted
944	02/10/2023	17:32:23.152	52A3P	Deasserted
943	02/10/2023	17:32:23.152	OUT104	Deasserted
942	02/10/2023	17:32:23.152	OUT105	Asserted
941	02/10/2023	17:32:23.917	TRIP3P	Deasserted
940	02/10/2023	17:32:51.596	RB01	Asserted
939	02/10/2023	17:32:51.601	RB01	Deasserted
938	02/10/2023	17:33:15.649	CC3	Asserted
937	02/10/2023	17:33:15.654	CC3	Deasserted
936	02/10/2023	17:33:15.699	PINC	Asserted
935	02/10/2023	17:33:15.704	52A3P	Asserted
934	02/10/2023	17:33:15.704	OUT104	Asserted
933	02/10/2023	17:33:15.704	OUT105	Deasserted
932	02/10/2023	17:33:45.708	79LO3P	Deasserted
931	02/10/2023	17:33:45.708	79RS3P	Asserted
930	02/10/2023	17:33:45.713	SH23P	Deasserted
929	02/10/2023	17:33:45.713	SH03P	Asserted
928	02/10/2023	17:33:52.722	LT01	Asserted
927	02/10/2023	17:33:52.722	RB02	Asserted
926	02/10/2023	17:33:52.727	RB02	Deasserted
925	02/10/2023	17:35:14.218	RB02	Asserted
924	02/10/2023	17:35:14.223	RB02	Deasserted
923	02/10/2023	17:36:05.500	LT01	Deasserted
922	02/10/2023	17:36:05.500	RB01	Asserted
921	02/10/2023	17:36:05.505	RB01	Deasserted
920	02/10/2023	17:36:40.308	LT06	Deasserted
919	02/10/2023	17:36:40.308	SV32	Asserted
918	02/10/2023	17:36:40.308	OUT107	Asserted
917	02/10/2023	17:36:59.861	LT06	Asserted
916	02/10/2023	17:36:59.861	SV32	Deasserted
915	02/10/2023	17:36:59.861	OUT107	Deasserted
914	02/10/2023	17:41:43.895	LT06	Deasserted
913	02/10/2023	17:41:43.895	SV32	Asserted
912	02/10/2023	17:41:43.895	OUT107	Asserted
911	02/10/2023	17:41:43.895	PB07_PUL	Asserted
910	02/10/2023	17:41:43.895	PB07	Asserted
909	02/10/2023	17:41:43.900	PB07_PUL	Deasserted
908	02/10/2023	17:41:44.095	PB07	Deasserted
907	02/10/2023	17:41:48.540	LT06	Asserted
906	02/10/2023	17:41:48.540	SV32	Deasserted
905	02/10/2023	17:41:48.540	OUT107	Deasserted
904	02/10/2023	17:41:48.540	PB07_PUL	Asserted
903	02/10/2023	17:41:48.540	PB07	Asserted
902	02/10/2023	17:41:48.545	PB07_PUL	Deasserted
901	02/10/2023	17:41:48.725	PB07	Deasserted
900	02/10/2023	17:41:49.320	LT02	Asserted
899	02/10/2023	17:41:49.320	OUT108	Asserted
898	02/10/2023	17:41:49.320	PB02_PUL	Asserted

897	02/10/2023	17:41:49.320	PB02	Asserted
896	02/10/2023	17:41:49.325	PB02_PUL	Deasserted
895	02/10/2023	17:41:49.515	PB02	Deasserted
894	02/10/2023	17:41:52.730	LT02	Deasserted
893	02/10/2023	17:41:52.730	OUT108	Deasserted
892	02/10/2023	17:41:52.730	PB02_PUL	Asserted
891	02/10/2023	17:41:52.730	PB02	Asserted
890	02/10/2023	17:41:52.735	PB02_PUL	Deasserted
889	02/10/2023	17:41:52.935	PB02	Deasserted
888	02/10/2023	17:41:53.720	LT04	Asserted
887	02/10/2023	17:41:53.720	PB05_PUL	Asserted
886	02/10/2023	17:41:53.720	PB05	Asserted
885	02/10/2023	17:41:53.725	PB05_PUL	Deasserted
884	02/10/2023	17:41:53.870	PB05	Deasserted
883	02/10/2023	17:41:58.629	LT04	Deasserted
882	02/10/2023	17:41:58.629	PB05_PUL	Asserted
881	02/10/2023	17:41:58.629	PB05	Asserted
880	02/10/2023	17:41:58.634	PB05_PUL	Deasserted
879	02/10/2023	17:41:58.779	PB05	Deasserted
878	02/10/2023	17:42:04.429	LT01	Asserted
877	02/10/2023	17:42:04.429	PB01_PUL	Asserted
876	02/10/2023	17:42:04.429	PB01	Asserted
875	02/10/2023	17:42:04.434	PB01_PUL	Deasserted
874	02/10/2023	17:42:04.564	PB01	Deasserted
873	02/10/2023	17:42:05.544	LT01	Deasserted
872	02/10/2023	17:42:05.544	PB01_PUL	Asserted
871	02/10/2023	17:42:05.544	PB01	Asserted
870	02/10/2023	17:42:05.549	PB01_PUL	Deasserted
869	02/10/2023	17:42:05.739	PB01	Deasserted
868	02/10/2023	17:42:21.738	LT06	Deasserted
867	02/10/2023	17:42:21.738	SV32	Asserted
866	02/10/2023	17:42:21.738	OUT107	Asserted
865	02/10/2023	17:42:21.738	PB07_PUL	Asserted
864	02/10/2023	17:42:21.738	PB07	Asserted
863	02/10/2023	17:42:21.743	PB07_PUL	Deasserted
862	02/10/2023	17:42:21.858	PB07	Deasserted
861	02/10/2023	17:42:25.443	LT06	Asserted
860	02/10/2023	17:42:25.443	SV32	Deasserted
859	02/10/2023	17:42:25.443	OUT107	Deasserted
858	02/10/2023	17:42:25.443	PB07_PUL	Asserted
857	02/10/2023	17:42:25.443	PB07	Asserted
856	02/10/2023	17:42:25.448	PB07_PUL	Deasserted
855	02/10/2023	17:42:25.548	PB07	Deasserted
854	02/10/2023	17:42:31.727	LT03	Deasserted
853	02/10/2023	17:42:31.727	SV35	Asserted
852	02/10/2023	17:42:31.727	PB03_PUL	Asserted
851	02/10/2023	17:42:31.727	PB03	Asserted
850	02/10/2023	17:42:31.732	PB03_PUL	Deasserted
849	02/10/2023	17:42:31.947	PB03	Deasserted
848	02/10/2023	17:42:32.412	LT06	Deasserted
847	02/10/2023	17:42:32.412	SV32	Asserted
846	02/10/2023	17:42:32.412	OUT107	Asserted
845	02/10/2023	17:42:32.412	PB07_PUL	Asserted
844	02/10/2023	17:42:32.412	PB07	Asserted

843	02/10/2023	17:42:32.417	PB07_PUL	Deasserted
842	02/10/2023	17:42:32.582	PB07	Deasserted
841	02/10/2023	17:42:33.272	LT06	Asserted
840	02/10/2023	17:42:33.272	SV32	Deasserted
839	02/10/2023	17:42:33.272	OUT107	Deasserted
838	02/10/2023	17:42:33.272	PB07_PUL	Asserted
837	02/10/2023	17:42:33.272	PB07	Asserted
836	02/10/2023	17:42:33.277	PB07_PUL	Deasserted
835	02/10/2023	17:42:33.447	PB07	Deasserted
834	02/10/2023	17:42:34.012	LT03	Asserted
833	02/10/2023	17:42:34.012	SV35	Deasserted
832	02/10/2023	17:42:34.012	PB03_PUL	Asserted
831	02/10/2023	17:42:34.012	PB03	Asserted
830	02/10/2023	17:42:34.017	PB03_PUL	Deasserted
829	02/10/2023	17:42:34.207	PB03	Deasserted
828	02/10/2023	17:47:11.521	IN102	Asserted
827	02/10/2023	17:47:11.756	IN102	Deasserted
826	02/10/2023	17:47:28.555	IN101	Asserted
825	02/10/2023	17:47:28.560	TRIP3P	Asserted
824	02/10/2023	17:47:28.560	79LO3P	Asserted
823	02/10/2023	17:47:28.560	79RS3P	Deasserted
822	02/10/2023	17:47:28.565	SH23P	Asserted
821	02/10/2023	17:47:28.565	SH03P	Deasserted
820	02/10/2023	17:47:28.580	PINC	Deasserted
819	02/10/2023	17:47:28.595	52A3P	Deasserted
818	02/10/2023	17:47:28.595	OUT104	Deasserted
817	02/10/2023	17:47:28.595	OUT105	Asserted
816	02/10/2023	17:47:28.765	IN101	Deasserted
815	02/10/2023	17:47:29.360	TRIP3P	Deasserted
814	02/10/2023	17:47:32.865	IN102	Asserted
813	02/10/2023	17:47:32.915	PINC	Asserted
812	02/10/2023	17:47:32.920	52A3P	Asserted
811	02/10/2023	17:47:32.920	OUT104	Asserted
810	02/10/2023	17:47:32.920	OUT105	Deasserted
809	02/10/2023	17:47:33.110	IN102	Deasserted
808	02/10/2023	17:48:02.923	79LO3P	Deasserted
807	02/10/2023	17:48:02.923	79RS3P	Asserted
806	02/10/2023	17:48:02.928	SH23P	Deasserted
805	02/10/2023	17:48:02.928	SH03P	Asserted
804	02/10/2023	17:49:20.899	LT03	Deasserted
803	02/10/2023	17:49:20.899	SV35	Asserted
802	02/10/2023	17:49:20.899	PB03_PUL	Asserted
801	02/10/2023	17:49:20.899	PB03	Asserted
800	02/10/2023	17:49:20.904	PB03_PUL	Deasserted
799	02/10/2023	17:49:21.149	PB03	Deasserted
798	02/10/2023	17:49:35.623	IN102	Asserted
797	02/10/2023	17:49:35.878	IN102	Deasserted
796	02/10/2023	17:49:39.018	IN101	Asserted
795	02/10/2023	17:49:39.263	IN101	Deasserted
794	02/10/2023	17:50:22.040	IN102	Asserted
793	02/10/2023	17:50:23.990	IN102	Deasserted
792	02/10/2023	17:50:25.070	IN101	Asserted
791	02/10/2023	17:50:26.530	IN101	Deasserted
790	02/10/2023	17:50:37.224	IN101	Asserted

789	02/10/2023	17:50:38.544	IN101	Deasserted
788	02/10/2023	17:50:39.839	IN102	Asserted
787	02/10/2023	17:50:40.949	IN102	Deasserted
786	02/10/2023	18:02:08.295	LT03	Asserted
785	02/10/2023	18:02:08.295	SV35	Deasserted
784	02/10/2023	18:02:08.295	PB03_PUL	Asserted
783	02/10/2023	18:02:08.295	PB03	Asserted
782	02/10/2023	18:02:08.300	PB03_PUL	Deasserted
781	02/10/2023	18:02:08.459	PB03	Deasserted
780	02/10/2023	18:02:19.629	IN101	Asserted
779	02/10/2023	18:02:19.634	TRIP3P	Asserted
778	02/10/2023	18:02:19.634	79LO3P	Asserted
777	02/10/2023	18:02:19.634	79RS3P	Deasserted
776	02/10/2023	18:02:19.639	SH23P	Asserted
775	02/10/2023	18:02:19.639	SH03P	Deasserted
774	02/10/2023	18:02:19.654	PINC	Deasserted
773	02/10/2023	18:02:19.669	52A3P	Deasserted
772	02/10/2023	18:02:19.669	OUT104	Deasserted
771	02/10/2023	18:02:19.669	OUT105	Asserted
770	02/10/2023	18:02:19.949	IN101	Deasserted
769	02/10/2023	18:02:20.434	TRIP3P	Deasserted
768	02/10/2023	18:02:25.094	IN102	Asserted
767	02/10/2023	18:02:25.144	PINC	Asserted
766	02/10/2023	18:02:25.149	52A3P	Asserted
765	02/10/2023	18:02:25.149	OUT104	Asserted
764	02/10/2023	18:02:25.149	OUT105	Deasserted
763	02/10/2023	18:02:25.414	IN102	Deasserted
762	02/10/2023	18:02:55.152	79LO3P	Deasserted
761	02/10/2023	18:02:55.152	79RS3P	Asserted
760	02/10/2023	18:02:55.157	SH23P	Deasserted
759	02/10/2023	18:02:55.157	SH03P	Asserted
758	02/10/2023	18:05:22.438	SALARM	Asserted
757	02/10/2023	18:05:22.443	SV36T	Asserted
756	02/10/2023	18:05:23.818	SALARM	Deasserted
755	02/10/2023	18:05:23.823	SV36T	Deasserted
754	02/10/2023	18:05:36.173	Settings changed	
753	02/10/2023	18:05:36.173	SH23P	Asserted
752	02/10/2023	18:05:36.173	SH03P	Deasserted
751	02/10/2023	18:05:36.173	SALARM	Asserted
750	02/10/2023	18:05:36.178	SV36T	Asserted
749	02/10/2023	18:05:37.352	SALARM	Deasserted
748	02/10/2023	18:05:37.357	SV36T	Deasserted
747	02/10/2023	18:06:06.176	SH23P	Deasserted
746	02/10/2023	18:06:06.176	SH03P	Asserted
745	02/10/2023	18:07:59.769	PB01_PUL	Asserted
744	02/10/2023	18:07:59.769	PB01	Asserted
743	02/10/2023	18:07:59.774	PB01_PUL	Deasserted
742	02/10/2023	18:08:00.064	PB01	Deasserted
741	02/10/2023	18:08:01.674	PB02_PUL	Asserted
740	02/10/2023	18:08:01.674	PB02	Asserted
739	02/10/2023	18:08:01.679	PB02_PUL	Deasserted
738	02/10/2023	18:08:01.884	PB02	Deasserted
737	02/10/2023	18:08:03.944	Group changed	
736	02/10/2023	18:08:03.944	SH33P	Asserted

735	02/10/2023	18:08:03.944	SH03P	Deasserted
734	02/10/2023	18:08:03.944	OUT104	Deasserted
733	02/10/2023	18:08:03.944	SG2	Asserted
732	02/10/2023	18:08:03.944	SG1	Deasserted
731	02/10/2023	18:08:03.944	SALARM	Asserted
730	02/10/2023	18:08:04.904	SALARM	Deasserted
729	02/10/2023	18:08:09.859	Group changed	
728	02/10/2023	18:08:09.859	SH33P	Deasserted
727	02/10/2023	18:08:09.859	SH23P	Asserted
726	02/10/2023	18:08:09.859	OUT104	Asserted
725	02/10/2023	18:08:09.859	SG2	Deasserted
724	02/10/2023	18:08:09.859	SG1	Asserted
723	02/10/2023	18:08:09.859	SALARM	Asserted
722	02/10/2023	18:08:09.864	SV36T	Asserted
721	02/10/2023	18:08:10.919	SALARM	Deasserted
720	02/10/2023	18:08:10.924	SV36T	Deasserted
719	02/10/2023	18:08:12.224	PB07_PUL	Asserted
718	02/10/2023	18:08:12.224	PB07_	Asserted
717	02/10/2023	18:08:12.229	PB07_PUL	Deasserted
716	02/10/2023	18:08:12.504	PB07_	Deasserted
715	02/10/2023	18:08:14.253	PB05_PUL	Asserted
714	02/10/2023	18:08:14.253	PB05_	Asserted
713	02/10/2023	18:08:14.258	PB05_PUL	Deasserted
712	02/10/2023	18:08:14.423	PB05_	Deasserted
711	02/10/2023	18:08:15.448	LT03	Deasserted
710	02/10/2023	18:08:15.448	SV35	Asserted
709	02/10/2023	18:08:15.448	PB03_PUL	Asserted
708	02/10/2023	18:08:15.448	PB03_	Asserted
707	02/10/2023	18:08:15.453	PB03_PUL	Deasserted
706	02/10/2023	18:08:15.603	PB03_	Deasserted
705	02/10/2023	18:08:16.918	LT01	Asserted
704	02/10/2023	18:08:16.918	PB01_PUL	Asserted
703	02/10/2023	18:08:16.918	PB01_	Asserted
702	02/10/2023	18:08:16.923	PB01_PUL	Deasserted
701	02/10/2023	18:08:17.038	PB01_	Deasserted
700	02/10/2023	18:08:18.528	LT01	Deasserted
699	02/10/2023	18:08:18.528	PB01_PUL	Asserted
698	02/10/2023	18:08:18.528	PB01_	Asserted
697	02/10/2023	18:08:18.533	PB01_PUL	Deasserted
696	02/10/2023	18:08:18.648	PB01_	Deasserted
695	02/10/2023	18:08:19.663	LT02	Asserted
694	02/10/2023	18:08:19.663	OUT108	Asserted
693	02/10/2023	18:08:19.663	PB02_PUL	Asserted
692	02/10/2023	18:08:19.663	PB02_	Asserted
691	02/10/2023	18:08:19.668	PB02_PUL	Deasserted
690	02/10/2023	18:08:19.778	PB02_	Deasserted
689	02/10/2023	18:08:22.098	LT02	Deasserted
688	02/10/2023	18:08:22.098	OUT108	Deasserted
687	02/10/2023	18:08:22.098	PB02_PUL	Asserted
686	02/10/2023	18:08:22.098	PB02_	Asserted
685	02/10/2023	18:08:22.103	PB02_PUL	Deasserted
684	02/10/2023	18:08:22.178	PB02_	Deasserted
683	02/10/2023	18:08:24.883	LT04	Asserted
682	02/10/2023	18:08:24.883	PB05_PUL	Asserted

681	02/10/2023	18:08:24.883	PB05	Asserted
680	02/10/2023	18:08:24.888	PB05_PUL	Deasserted
679	02/10/2023	18:08:24.998	PB05	Deasserted
678	02/10/2023	18:08:26.238	LT04	Deasserted
677	02/10/2023	18:08:26.238	PB05_PUL	Asserted
676	02/10/2023	18:08:26.238	PB05	Asserted
675	02/10/2023	18:08:26.243	PB05_PUL	Deasserted
674	02/10/2023	18:08:26.338	PB05	Deasserted
673	02/10/2023	18:08:27.918	Group changed	
672	02/10/2023	18:08:27.918	SV35	Deasserted
671	02/10/2023	18:08:27.918	SH33P	Asserted
670	02/10/2023	18:08:27.918	SH23P	Deasserted
669	02/10/2023	18:08:27.918	OUT104	Deasserted
668	02/10/2023	18:08:27.918	SG2	Asserted
667	02/10/2023	18:08:27.918	SG1	Deasserted
666	02/10/2023	18:08:27.918	SALARM	Asserted
665	02/10/2023	18:08:28.883	SALARM	Deasserted
664	02/10/2023	18:08:30.352	Group changed	
663	02/10/2023	18:08:30.352	SV35	Asserted
662	02/10/2023	18:08:30.352	SH33P	Deasserted
661	02/10/2023	18:08:30.352	SH23P	Asserted
660	02/10/2023	18:08:30.352	OUT104	Asserted
659	02/10/2023	18:08:30.352	SG2	Deasserted
658	02/10/2023	18:08:30.352	SG1	Asserted
657	02/10/2023	18:08:30.352	SALARM	Asserted
656	02/10/2023	18:08:30.357	SV36T	Asserted
655	02/10/2023	18:08:31.387	SALARM	Deasserted
654	02/10/2023	18:08:31.392	SV36T	Deasserted
653	02/10/2023	18:08:34.867	LT03	Asserted
652	02/10/2023	18:08:34.867	SV35	Deasserted
651	02/10/2023	18:08:34.867	PB03_PUL	Asserted
650	02/10/2023	18:08:34.867	PB03	Asserted
649	02/10/2023	18:08:34.872	PB03_PUL	Deasserted
648	02/10/2023	18:08:34.982	PB03	Deasserted
647	02/10/2023	18:09:00.356	SH23P	Deasserted
646	02/10/2023	18:09:00.356	SH03P	Asserted
645	02/10/2023	18:10:47.595	Group changed	
644	02/10/2023	18:10:47.595	SH33P	Asserted
643	02/10/2023	18:10:47.595	SH03P	Deasserted
642	02/10/2023	18:10:47.595	OUT104	Deasserted
641	02/10/2023	18:10:47.595	SG2	Asserted
640	02/10/2023	18:10:47.595	SG1	Deasserted
639	02/10/2023	18:10:47.595	SALARM	Asserted
638	02/10/2023	18:10:48.555	SALARM	Deasserted
637	02/10/2023	18:10:59.599	SH33P	Deasserted
636	02/10/2023	18:10:59.599	SH03P	Asserted
635	02/10/2023	18:15:12.119	SALARM	Asserted
634	02/10/2023	18:15:13.224	SALARM	Deasserted
633	02/10/2023	18:15:37.243	TRIP3P	Asserted
632	02/10/2023	18:15:37.243	OC3	Asserted
631	02/10/2023	18:15:37.243	79LO3P	Asserted
630	02/10/2023	18:15:37.243	79RS3P	Deasserted
629	02/10/2023	18:15:37.248	OC3	Deasserted
628	02/10/2023	18:15:37.248	SH33P	Asserted

627	02/10/2023	18:15:37.248	SH03P	Deasserted
626	02/10/2023	18:15:37.263	PINC	Deasserted
625	02/10/2023	18:15:37.263	PINBD	Deasserted
624	02/10/2023	18:15:37.278	PINBD	Asserted
623	02/10/2023	18:15:37.293	52A3P	Deasserted
622	02/10/2023	18:15:38.043	TRIP3P	Deasserted
621	02/10/2023	18:15:49.207	CC3	Asserted
620	02/10/2023	18:15:49.212	CC3	Deasserted
619	02/10/2023	18:15:49.257	PINC	Asserted
618	02/10/2023	18:15:49.262	52A3P	Asserted
617	02/10/2023	18:16:01.267	79LO3P	Deasserted
616	02/10/2023	18:16:01.267	79RS3P	Asserted
615	02/10/2023	18:16:01.272	SH33P	Deasserted
614	02/10/2023	18:16:01.272	SH03P	Asserted
613	02/10/2023	18:20:54.825	TRIP3P	Asserted
612	02/10/2023	18:20:54.825	OC3	Asserted
611	02/10/2023	18:20:54.825	79LO3P	Asserted
610	02/10/2023	18:20:54.825	79RS3P	Deasserted
609	02/10/2023	18:20:54.830	OC3	Deasserted
608	02/10/2023	18:20:54.830	SH33P	Asserted
607	02/10/2023	18:20:54.830	SH03P	Deasserted
606	02/10/2023	18:20:54.845	PINC	Deasserted
605	02/10/2023	18:20:54.860	52A3P	Deasserted
604	02/10/2023	18:20:55.625	TRIP3P	Deasserted
603	02/10/2023	18:21:44.722	CC3	Asserted
602	02/10/2023	18:21:44.727	CC3	Deasserted
601	02/10/2023	18:21:44.772	PINC	Asserted
600	02/10/2023	18:21:44.777	52A3P	Asserted
599	02/10/2023	18:21:56.781	79LO3P	Deasserted
598	02/10/2023	18:21:56.781	79RS3P	Asserted
597	02/10/2023	18:21:56.786	SH33P	Deasserted
596	02/10/2023	18:21:56.786	SH03P	Asserted
595	02/10/2023	18:22:19.045	TRIP3P	Asserted
594	02/10/2023	18:22:19.045	OC3	Asserted
593	02/10/2023	18:22:19.045	79LO3P	Asserted
592	02/10/2023	18:22:19.045	79RS3P	Deasserted
591	02/10/2023	18:22:19.050	OC3	Deasserted
590	02/10/2023	18:22:19.050	SH33P	Asserted
589	02/10/2023	18:22:19.050	SH03P	Deasserted
588	02/10/2023	18:22:19.065	PINC	Deasserted
587	02/10/2023	18:22:19.080	52A3P	Deasserted
586	02/10/2023	18:22:19.845	TRIP3P	Deasserted
585	02/10/2023	18:24:23.523	Group changed	
584	02/10/2023	18:24:23.523	SH33P	Deasserted
583	02/10/2023	18:24:23.523	SH23P	Asserted
582	02/10/2023	18:24:23.523	OUT105	Asserted
581	02/10/2023	18:24:23.523	SG2	Deasserted
580	02/10/2023	18:24:23.523	SG1	Asserted
579	02/10/2023	18:24:23.523	SALARM	Asserted
578	02/10/2023	18:24:23.528	SV36T	Asserted
577	02/10/2023	18:24:24.478	SALARM	Deasserted
576	02/10/2023	18:24:24.483	SV36T	Deasserted
575	02/10/2023	18:25:02.330	CC3	Asserted
574	02/10/2023	18:25:02.335	CC3	Deasserted

573	02/10/2023	18:25:02.380	PINC	Asserted
572	02/10/2023	18:25:02.385	52A3P	Asserted
571	02/10/2023	18:25:02.385	OUT104	Asserted
570	02/10/2023	18:25:02.385	OUT105	Deasserted
569	02/10/2023	18:25:26.179	TRIP3P	Asserted
568	02/10/2023	18:25:26.179	OC3	Asserted
567	02/10/2023	18:25:26.184	OC3	Deasserted
566	02/10/2023	18:25:26.199	PINC	Deasserted
565	02/10/2023	18:25:26.214	52A3P	Deasserted
564	02/10/2023	18:25:26.214	OUT104	Deasserted
563	02/10/2023	18:25:26.214	OUT105	Asserted
562	02/10/2023	18:25:26.979	TRIP3P	Deasserted
561	02/10/2023	18:26:57.824	SV02T	Asserted
560	02/10/2023	18:26:57.824	PB11	Asserted
559	02/10/2023	18:26:57.829	SV02T	Deasserted
558	02/10/2023	18:26:58.194	PB11	Deasserted
557	02/10/2023	18:26:58.784	LT03	Deasserted
556	02/10/2023	18:26:58.784	SV35	Asserted
555	02/10/2023	18:26:58.784	PB03_PUL	Asserted
554	02/10/2023	18:26:58.784	PB03_	Asserted
553	02/10/2023	18:26:58.789	PB03_PUL	Deasserted
552	02/10/2023	18:26:59.179	PB03_	Deasserted
551	02/10/2023	18:27:06.263	SV02T	Asserted
550	02/10/2023	18:27:06.263	PB11	Asserted
549	02/10/2023	18:27:06.268	SV02T	Deasserted
548	02/10/2023	18:27:06.318	PINC	Asserted
547	02/10/2023	18:27:06.323	52A3P	Asserted
546	02/10/2023	18:27:06.323	OUT104	Asserted
545	02/10/2023	18:27:06.323	OUT105	Deasserted
544	02/10/2023	18:27:06.568	PB11	Deasserted
543	02/10/2023	18:27:07.778	LT03	Asserted
542	02/10/2023	18:27:07.778	SV35	Deasserted
541	02/10/2023	18:27:07.778	PB03_PUL	Asserted
540	02/10/2023	18:27:07.778	PB03_	Asserted
539	02/10/2023	18:27:07.783	PB03_PUL	Deasserted
538	02/10/2023	18:27:08.288	PB03_	Deasserted
537	02/10/2023	18:27:19.786	PINC	Deasserted
536	02/10/2023	18:27:19.786	PINBD	Deasserted
535	02/10/2023	18:27:19.801	52A3P	Deasserted
534	02/10/2023	18:27:19.801	OUT104	Deasserted
533	02/10/2023	18:27:19.801	OUT105	Asserted
532	02/10/2023	18:27:20.170	52A3P	Asserted
531	02/10/2023	18:27:20.170	PINC	Asserted
530	02/10/2023	18:27:20.170	PINBD	Asserted
529	02/10/2023	18:27:20.170	OUT104	Asserted
528	02/10/2023	18:27:20.170	OUT105	Deasserted
527	02/10/2023	18:27:20.210	PINC	Deasserted
526	02/10/2023	18:27:20.210	PINBD	Deasserted
525	02/10/2023	18:27:20.225	52A3P	Deasserted
524	02/10/2023	18:27:20.225	OUT104	Deasserted
523	02/10/2023	18:27:20.225	OUT105	Asserted
522	02/10/2023	18:27:20.973	PINBD	Asserted
521	02/10/2023	18:27:20.993	52A3P	Asserted
520	02/10/2023	18:27:20.993	PINC	Asserted

519	02/10/2023	18:27:20.993	OUT104	Asserted
518	02/10/2023	18:27:20.993	OUT105	Deasserted
517	02/10/2023	18:27:21.107	PINC	Deasserted
516	02/10/2023	18:27:21.122	52A3P	Deasserted
515	02/10/2023	18:27:21.122	OUT104	Deasserted
514	02/10/2023	18:27:21.122	OUT105	Asserted
513	02/10/2023	18:27:21.172	PINBD	Deasserted
512	02/10/2023	18:27:21.277	PINBD	Asserted
511	02/10/2023	18:27:21.362	PINBD	Deasserted
510	02/10/2023	18:29:38.425	SALARM	Asserted
509	02/10/2023	18:29:38.430	SV36T	Asserted
508	02/10/2023	18:29:39.786	SALARM	Deasserted
507	02/10/2023	18:29:39.791	SV36T	Deasserted
506	02/10/2023	18:29:46.365	Settings changed	
505	02/10/2023	18:29:46.365	SALARM	Asserted
504	02/10/2023	18:29:46.370	SV36T	Asserted
503	02/10/2023	18:29:47.805	SALARM	Deasserted
502	02/10/2023	18:29:47.810	SV36T	Deasserted
501	02/10/2023	18:37:34.542	SV02T	Asserted
500	02/10/2023	18:37:34.542	PB11	Asserted
499	02/10/2023	18:37:34.547	SV02T	Deasserted
498	02/10/2023	18:37:35.141	PB11	Deasserted
497	02/10/2023	18:38:01.397	PB01_PUL	Asserted
496	02/10/2023	18:38:01.397	PB01_	Asserted
495	02/10/2023	18:38:01.402	PB01_PUL	Deasserted
494	02/10/2023	18:38:01.945	PB01_	Deasserted
493	02/10/2023	18:38:02.334	PB01_PUL	Asserted
492	02/10/2023	18:38:02.334	PB01_	Asserted
491	02/10/2023	18:38:02.339	PB01_PUL	Deasserted
490	02/10/2023	18:38:02.697	PB01_	Deasserted
489	02/10/2023	18:38:03.684	LT03	Deasserted
488	02/10/2023	18:38:03.684	SV35	Asserted
487	02/10/2023	18:38:03.684	PB03_PUL	Asserted
486	02/10/2023	18:38:03.684	PB03_	Asserted
485	02/10/2023	18:38:03.689	PB03_PUL	Deasserted
484	02/10/2023	18:38:03.958	PB03_	Deasserted
483	02/10/2023	18:38:04.436	LT01	Asserted
482	02/10/2023	18:38:04.436	PB01_PUL	Asserted
481	02/10/2023	18:38:04.436	PB01_	Asserted
480	02/10/2023	18:38:04.441	PB01_PUL	Deasserted
479	02/10/2023	18:38:04.720	PB01_	Deasserted
478	02/10/2023	18:38:06.574	LT01	Deasserted
477	02/10/2023	18:38:06.574	PB01_PUL	Asserted
476	02/10/2023	18:38:06.574	PB01_	Asserted
475	02/10/2023	18:38:06.579	PB01_PUL	Deasserted
474	02/10/2023	18:38:06.738	PB01_	Deasserted
473	02/10/2023	18:38:08.876	LT03	Asserted
472	02/10/2023	18:38:08.876	SV35	Deasserted
471	02/10/2023	18:38:08.876	PB03_PUL	Asserted
470	02/10/2023	18:38:08.876	PB03_	Asserted
469	02/10/2023	18:38:08.881	PB03_PUL	Deasserted
468	02/10/2023	18:38:09.016	PB03_	Deasserted
467	02/10/2023	18:38:12.890	LT03	Deasserted
466	02/10/2023	18:38:12.890	SV35	Asserted

465	02/10/2023	18:38:12.890	PB03_PUL	Asserted
464	02/10/2023	18:38:12.890	PB03	Asserted
463	02/10/2023	18:38:12.895	PB03_PUL	Deasserted
462	02/10/2023	18:38:12.995	PB03	Deasserted
461	02/10/2023	18:39:38.135	50G6	Asserted
460	02/10/2023	18:39:38.205	50G6	Deasserted
459	02/10/2023	18:39:38.619	50G6	Asserted
458	02/10/2023	18:39:38.773	50G6	Deasserted
457	02/10/2023	18:39:40.369	50G6	Asserted
456	02/10/2023	18:39:41.411	50G6	Deasserted
455	02/10/2023	18:39:44.033	50G6	Asserted
454	02/10/2023	18:39:44.671	50G6	Deasserted
453	02/10/2023	18:39:45.459	PINBD	Asserted
452	02/10/2023	18:39:45.474	52A3P	Asserted
451	02/10/2023	18:39:45.474	PINC	Asserted
450	02/10/2023	18:39:45.474	OUT104	Asserted
449	02/10/2023	18:39:45.474	OUT105	Deasserted
448	02/10/2023	18:40:15.386	79LO3P	Deasserted
447	02/10/2023	18:40:15.386	79RS3P	Asserted
446	02/10/2023	18:40:15.391	SH23P	Deasserted
445	02/10/2023	18:40:15.391	SH03P	Asserted
444	02/10/2023	18:41:43.919	LT01	Asserted
443	02/10/2023	18:41:43.919	PB01_PUL	Asserted
442	02/10/2023	18:41:43.919	PB01	Asserted
441	02/10/2023	18:41:43.924	PB01_PUL	Deasserted
440	02/10/2023	18:41:44.089	PB01	Deasserted
439	02/10/2023	18:41:50.824	LT03	Asserted
438	02/10/2023	18:41:50.824	SV35	Deasserted
437	02/10/2023	18:41:50.824	PB03_PUL	Asserted
436	02/10/2023	18:41:50.824	PB03	Asserted
435	02/10/2023	18:41:50.829	PB03_PUL	Deasserted
434	02/10/2023	18:41:50.984	PB03	Deasserted
433	02/10/2023	18:41:59.139	LT05	Deasserted
432	02/27/2023	09:34:20.605	50P6	Asserted
431	02/27/2023	09:34:20.605	OUT106	Asserted
430	02/27/2023	09:34:20.605	51P1	Asserted
429	02/27/2023	09:34:20.634	50P6	Deasserted
428	02/27/2023	09:34:20.634	OUT106	Deasserted
427	02/27/2023	09:34:20.634	51P1	Deasserted
426	02/27/2023	19:40:33.950	50P6	Asserted
425	02/27/2023	19:40:33.950	OUT106	Asserted
424	02/27/2023	19:40:33.950	51P1	Asserted
423	02/27/2023	19:40:33.970	50P6	Deasserted
422	02/27/2023	19:40:33.970	OUT106	Deasserted
421	02/27/2023	19:40:33.970	51P1	Deasserted
420	02/28/2023	09:39:48.556	50P6	Asserted
419	02/28/2023	09:39:48.556	OUT106	Asserted
418	02/28/2023	09:39:48.556	51P1	Asserted
417	02/28/2023	09:39:48.581	50P6	Deasserted
416	02/28/2023	09:39:48.586	OUT106	Deasserted
415	02/28/2023	09:39:48.586	51P1	Deasserted
414	02/28/2023	19:37:26.468	50P6	Asserted
413	02/28/2023	19:37:26.473	OUT106	Asserted
412	02/28/2023	19:37:26.473	51P1	Asserted

411	02/28/2023	19:37:26.508	50P6	Deasserted
410	02/28/2023	19:37:26.513	OUT106	Deasserted
409	02/28/2023	19:37:26.513	51P1	Deasserted
408	03/01/2023	09:47:45.497	50P6	Asserted
407	03/01/2023	09:47:45.502	OUT106	Asserted
406	03/01/2023	09:47:45.502	51P1	Asserted
405	03/01/2023	09:47:45.512	50P6	Deasserted
404	03/01/2023	09:47:45.512	OUT106	Deasserted
403	03/01/2023	09:47:45.512	51P1	Deasserted
402	03/01/2023	19:48:10.358	50P6	Asserted
401	03/01/2023	19:48:10.358	OUT106	Asserted
400	03/01/2023	19:48:10.358	51P1	Asserted
399	03/01/2023	19:48:10.378	50P6	Deasserted
398	03/01/2023	19:48:10.378	OUT106	Deasserted
397	03/01/2023	19:48:10.378	51P1	Deasserted
396	03/02/2023	10:17:34.081	50P6	Asserted
395	03/02/2023	10:17:34.081	OUT106	Asserted
394	03/02/2023	10:17:34.081	51P1	Asserted
393	03/02/2023	10:17:34.121	50P6	Deasserted
392	03/02/2023	10:17:34.121	OUT106	Deasserted
391	03/02/2023	10:17:34.121	51P1	Deasserted
390	03/03/2023	19:52:17.891	50P6	Asserted
389	03/03/2023	19:52:17.891	OUT106	Asserted
388	03/03/2023	19:52:17.891	51P1	Asserted
387	03/03/2023	19:52:17.930	50P6	Deasserted
386	03/03/2023	19:52:17.930	OUT106	Deasserted
385	03/03/2023	19:52:17.930	51P1	Deasserted
384	03/06/2023	19:37:22.560	50P6	Asserted
383	03/06/2023	19:37:22.565	OUT106	Asserted
382	03/06/2023	19:37:22.565	51P1	Asserted
381	03/06/2023	19:37:22.640	50P6	Deasserted
380	03/06/2023	19:37:22.645	OUT106	Deasserted
379	03/06/2023	19:37:22.645	51P1	Deasserted
378	03/07/2023	19:46:43.833	50P6	Asserted
377	03/07/2023	19:46:43.838	OUT106	Asserted
376	03/07/2023	19:46:43.838	51P1	Asserted
375	03/07/2023	19:46:43.878	50P6	Deasserted
374	03/07/2023	19:46:43.878	OUT106	Deasserted
373	03/07/2023	19:46:43.878	51P1	Deasserted
372	03/08/2023	19:43:09.245	50P6	Asserted
371	03/08/2023	19:43:09.245	OUT106	Asserted
370	03/08/2023	19:43:09.245	51P1	Asserted
369	03/08/2023	19:43:09.275	50P6	Deasserted
368	03/08/2023	19:43:09.275	OUT106	Deasserted
367	03/08/2023	19:43:09.275	51P1	Deasserted
366	03/09/2023	09:49:46.243	50P6	Asserted
365	03/09/2023	09:49:46.248	OUT106	Asserted
364	03/09/2023	09:49:46.248	51P1	Asserted
363	03/09/2023	09:49:46.258	50P6	Deasserted
362	03/09/2023	09:49:46.258	OUT106	Deasserted
361	03/09/2023	09:49:46.258	51P1	Deasserted
360	03/09/2023	20:13:03.259	50P6	Asserted
359	03/09/2023	20:13:03.264	OUT106	Asserted
358	03/09/2023	20:13:03.264	51P1	Asserted

357	03/09/2023	20:13:03.279	50P6	Deasserted
356	03/09/2023	20:13:03.284	OUT106	Deasserted
355	03/09/2023	20:13:03.284	51P1	Deasserted
354	03/10/2023	09:46:44.342	50P6	Asserted
353	03/10/2023	09:46:44.342	OUT106	Asserted
352	03/10/2023	09:46:44.342	51P1	Asserted
351	03/10/2023	09:46:44.352	50P6	Deasserted
350	03/10/2023	09:46:44.352	OUT106	Deasserted
349	03/10/2023	09:46:44.352	51P1	Deasserted
348	03/10/2023	19:32:05.774	50P6	Asserted
347	03/10/2023	19:32:05.774	OUT106	Asserted
346	03/10/2023	19:32:05.774	51P1	Asserted
345	03/10/2023	19:32:05.834	50P6	Deasserted
344	03/10/2023	19:32:05.834	OUT106	Deasserted
343	03/10/2023	19:32:05.834	51P1	Deasserted
342	03/11/2023	09:47:29.395	50P6	Asserted
341	03/11/2023	09:47:29.400	OUT106	Asserted
340	03/11/2023	09:47:29.400	51P1	Asserted
339	03/11/2023	09:47:29.415	50P6	Deasserted
338	03/11/2023	09:47:29.420	OUT106	Deasserted
337	03/11/2023	09:47:29.420	51P1	Deasserted
336	03/11/2023	19:36:24.982	50P6	Asserted
335	03/11/2023	19:36:24.987	OUT106	Asserted
334	03/11/2023	19:36:24.987	51P1	Asserted
333	03/11/2023	19:36:25.022	50P6	Deasserted
332	03/11/2023	19:36:25.027	OUT106	Deasserted
331	03/11/2023	19:36:25.027	51P1	Deasserted
330	03/12/2023	15:03:22.956	51G1	Asserted
329	03/12/2023	15:03:22.956	OUT106	Asserted
328	03/12/2023	15:03:22.991	50G6	Asserted
327	03/12/2023	15:03:23.461	50G6	Deasserted
326	03/12/2023	15:03:23.466	51G1	Deasserted
325	03/12/2023	15:03:23.466	OUT106	Deasserted
324	03/12/2023	15:14:50.955	51G1	Asserted
323	03/12/2023	15:14:50.955	OUT106	Asserted
322	03/12/2023	15:14:50.990	50G6	Asserted
321	03/12/2023	15:14:51.449	50G6	Deasserted
320	03/12/2023	15:14:51.454	51G1	Deasserted
319	03/12/2023	15:14:51.454	OUT106	Deasserted
318	03/13/2023	19:32:40.324	50P6	Asserted
317	03/13/2023	19:32:40.329	OUT106	Asserted
316	03/13/2023	19:32:40.329	51P1	Asserted
315	03/13/2023	19:32:40.344	50P6	Deasserted
314	03/13/2023	19:32:40.349	OUT106	Deasserted
313	03/13/2023	19:32:40.349	51P1	Deasserted
312	03/14/2023	09:54:37.628	50P6	Asserted
311	03/14/2023	09:54:37.633	OUT106	Asserted
310	03/14/2023	09:54:37.633	51P1	Asserted
309	03/14/2023	09:54:37.648	50P6	Deasserted
308	03/14/2023	09:54:37.653	OUT106	Deasserted
307	03/14/2023	09:54:37.653	51P1	Deasserted
306	03/14/2023	19:32:15.934	50P6	Asserted
305	03/14/2023	19:32:15.939	OUT106	Asserted
304	03/14/2023	19:32:15.939	51P1	Asserted

303	03/14/2023	19:32:15.974	50P6	Deasserted
302	03/14/2023	19:32:15.979	OUT106	Deasserted
301	03/14/2023	19:32:15.979	51P1	Deasserted
300	03/15/2023	10:00:01.806	50P6	Asserted
299	03/15/2023	10:00:01.806	OUT106	Asserted
298	03/15/2023	10:00:01.806	51P1	Asserted
297	03/15/2023	10:00:01.826	50P6	Deasserted
296	03/15/2023	10:00:01.826	OUT106	Deasserted
295	03/15/2023	10:00:01.826	51P1	Deasserted
294	03/15/2023	18:56:58.236	51G1	Asserted
293	03/15/2023	18:56:58.236	OUT106	Asserted
292	03/15/2023	18:56:58.246	51G1	Deasserted
291	03/15/2023	18:56:58.246	OUT106	Deasserted
290	03/15/2023	19:34:31.653	50P6	Asserted
289	03/15/2023	19:34:31.658	OUT106	Asserted
288	03/15/2023	19:34:31.658	51P1	Asserted
287	03/15/2023	19:34:31.718	50P6	Deasserted
286	03/15/2023	19:34:31.718	OUT106	Deasserted
285	03/15/2023	19:34:31.718	51P1	Deasserted
284	03/16/2023	09:54:41.340	50P6	Asserted
283	03/16/2023	09:54:41.345	OUT106	Asserted
282	03/16/2023	09:54:41.345	51P1	Asserted
281	03/16/2023	09:54:41.365	50P6	Deasserted
280	03/16/2023	09:54:41.365	OUT106	Deasserted
279	03/16/2023	09:54:41.365	51P1	Deasserted
278	03/16/2023	19:32:44.612	50P6	Asserted
277	03/16/2023	19:32:44.612	OUT106	Asserted
276	03/16/2023	19:32:44.612	51P1	Asserted
275	03/16/2023	19:32:44.632	50P6	Deasserted
274	03/16/2023	19:32:44.632	OUT106	Deasserted
273	03/16/2023	19:32:44.632	51P1	Deasserted
272	03/17/2023	09:57:10.990	50P6	Asserted
271	03/17/2023	09:57:10.995	OUT106	Asserted
270	03/17/2023	09:57:10.995	51P1	Asserted
269	03/17/2023	09:57:11.015	50P6	Deasserted
268	03/17/2023	09:57:11.015	OUT106	Deasserted
267	03/17/2023	09:57:11.015	51P1	Deasserted
266	03/18/2023	19:49:53.826	50P6	Asserted
265	03/18/2023	19:49:53.831	OUT106	Asserted
264	03/18/2023	19:49:53.831	51P1	Asserted
263	03/18/2023	19:49:53.871	50P6	Deasserted
262	03/18/2023	19:49:53.871	OUT106	Deasserted
261	03/18/2023	19:49:53.871	51P1	Deasserted
260	03/20/2023	19:35:19.772	50P6	Asserted
259	03/20/2023	19:35:19.772	OUT106	Asserted
258	03/20/2023	19:35:19.772	51P1	Asserted
257	03/20/2023	19:35:19.812	50P6	Deasserted
256	03/20/2023	19:35:19.812	OUT106	Deasserted
255	03/20/2023	19:35:19.812	51P1	Deasserted
254	03/21/2023	19:36:36.872	50P6	Asserted
253	03/21/2023	19:36:36.872	OUT106	Asserted
252	03/21/2023	19:36:36.872	51P1	Asserted
251	03/21/2023	19:36:36.912	50P6	Deasserted
250	03/21/2023	19:36:36.912	OUT106	Deasserted

249	03/21/2023	19:36:36.912	51P1	Deasserted
248	03/22/2023	09:49:09.824	50P6	Asserted
247	03/22/2023	09:49:09.829	OUT106	Asserted
246	03/22/2023	09:49:09.829	51P1	Asserted
245	03/22/2023	09:49:09.834	50P6	Deasserted
244	03/22/2023	09:49:09.839	OUT106	Deasserted
243	03/22/2023	09:49:09.839	51P1	Deasserted
242	03/22/2023	16:25:30.289	LT06	Deasserted
241	03/22/2023	16:25:30.289	SV32	Asserted
240	03/22/2023	16:25:30.289	OUT107	Asserted
239	03/22/2023	19:14:53.834	LT06	Asserted
238	03/22/2023	19:14:53.834	SV32	Deasserted
237	03/22/2023	19:14:53.834	OUT107	Deasserted
236	03/22/2023	19:34:59.408	50P6	Asserted
235	03/22/2023	19:34:59.408	OUT106	Asserted
234	03/22/2023	19:34:59.408	51P1	Asserted
233	03/22/2023	19:34:59.448	50P6	Deasserted
232	03/22/2023	19:34:59.448	OUT106	Deasserted
231	03/22/2023	19:34:59.448	51P1	Deasserted
230	03/23/2023	09:50:56.690	50P6	Asserted
229	03/23/2023	09:50:56.695	OUT106	Asserted
228	03/23/2023	09:50:56.695	51P1	Asserted
227	03/23/2023	09:50:56.710	50P6	Deasserted
226	03/23/2023	09:50:56.715	OUT106	Deasserted
225	03/23/2023	09:50:56.715	51P1	Deasserted
224	03/24/2023	09:51:31.082	50P6	Asserted
223	03/24/2023	09:51:31.087	50P6	Deasserted
222	03/27/2023	09:48:38.281	50P6	Asserted
221	03/27/2023	09:48:38.286	OUT106	Asserted
220	03/27/2023	09:48:38.286	51P1	Asserted
219	03/27/2023	09:48:38.306	50P6	Deasserted
218	03/27/2023	09:48:38.306	OUT106	Deasserted
217	03/27/2023	09:48:38.306	51P1	Deasserted
216	03/27/2023	19:37:13.913	50P6	Asserted
215	03/27/2023	19:37:13.913	OUT106	Asserted
214	03/27/2023	19:37:13.913	51P1	Asserted
213	03/27/2023	19:37:13.943	50P6	Deasserted
212	03/27/2023	19:37:13.943	OUT106	Deasserted
211	03/27/2023	19:37:13.943	51P1	Deasserted
210	03/29/2023	09:48:58.053	50P6	Asserted
209	03/29/2023	09:48:58.058	OUT106	Asserted
208	03/29/2023	09:48:58.058	51P1	Asserted
207	03/29/2023	09:48:58.088	50P6	Deasserted
206	03/29/2023	09:48:58.088	OUT106	Deasserted
205	03/29/2023	09:48:58.088	51P1	Deasserted
204	03/30/2023	09:48:53.034	50P6	Asserted
203	03/30/2023	09:48:53.039	OUT106	Asserted
202	03/30/2023	09:48:53.039	51P1	Asserted
201	03/30/2023	09:48:53.054	50P6	Deasserted
200	03/30/2023	09:48:53.059	OUT106	Deasserted
199	03/30/2023	09:48:53.059	51P1	Deasserted
198	03/30/2023	19:43:45.757	50P6	Asserted
197	03/30/2023	19:43:45.757	OUT106	Asserted
196	03/30/2023	19:43:45.757	51P1	Asserted

195	03/30/2023	19:43:45.792	50P6	Deasserted
194	03/30/2023	19:43:45.797	OUT106	Deasserted
193	03/30/2023	19:43:45.797	51P1	Deasserted
192	03/31/2023	09:48:03.331	50P6	Asserted
191	03/31/2023	09:48:03.336	OUT106	Asserted
190	03/31/2023	09:48:03.336	51P1	Asserted
189	03/31/2023	09:48:03.346	50P6	Deasserted
188	03/31/2023	09:48:03.346	OUT106	Deasserted
187	03/31/2023	09:48:03.346	51P1	Deasserted
186	04/01/2023	09:52:29.211	50P6	Asserted
185	04/01/2023	09:52:29.216	OUT106	Asserted
184	04/01/2023	09:52:29.216	51P1	Asserted
183	04/01/2023	09:52:29.226	50P6	Deasserted
182	04/01/2023	09:52:29.226	OUT106	Deasserted
181	04/01/2023	09:52:29.226	51P1	Deasserted
180	04/01/2023	19:58:39.431	50P6	Asserted
179	04/01/2023	19:58:39.431	OUT106	Asserted
178	04/01/2023	19:58:39.431	51P1	Asserted
177	04/01/2023	19:58:39.441	50P6	Deasserted
176	04/01/2023	19:58:39.441	OUT106	Deasserted
175	04/01/2023	19:58:39.441	51P1	Deasserted
174	04/03/2023	19:59:34.763	50P6	Asserted
173	04/03/2023	19:59:34.763	OUT106	Asserted
172	04/03/2023	19:59:34.763	51P1	Asserted
171	04/03/2023	19:59:34.798	50P6	Deasserted
170	04/03/2023	19:59:34.803	OUT106	Deasserted
169	04/03/2023	19:59:34.803	51P1	Deasserted
168	04/04/2023	19:41:23.677	50P6	Asserted
167	04/04/2023	19:41:23.677	OUT106	Asserted
166	04/04/2023	19:41:23.677	51P1	Asserted
165	04/04/2023	19:41:23.707	50P6	Deasserted
164	04/04/2023	19:41:23.707	OUT106	Deasserted
163	04/04/2023	19:41:23.707	51P1	Deasserted
162	04/05/2023	10:46:35.748	50P6	Asserted
161	04/05/2023	10:46:35.748	OUT106	Asserted
160	04/05/2023	10:46:35.748	51P1	Asserted
159	04/05/2023	10:46:35.788	50P6	Deasserted
158	04/05/2023	10:46:35.788	OUT106	Deasserted
157	04/05/2023	10:46:35.788	51P1	Deasserted
156	04/06/2023	10:48:00.523	50P6	Asserted
155	04/06/2023	10:48:00.523	OUT106	Asserted
154	04/06/2023	10:48:00.523	51P1	Asserted
153	04/06/2023	10:48:00.538	50P6	Deasserted
152	04/06/2023	10:48:00.543	OUT106	Deasserted
151	04/06/2023	10:48:00.543	51P1	Deasserted
150	04/08/2023	13:29:25.126	51G1	Asserted
149	04/08/2023	13:29:25.126	OUT106	Asserted
148	04/08/2023	13:29:25.161	50G6	Asserted
147	04/08/2023	13:29:25.181	50G6	Deasserted
146	04/08/2023	13:29:25.186	51G1	Deasserted
145	04/08/2023	13:29:25.186	OUT106	Deasserted
144	04/10/2023	19:43:30.699	50P6	Asserted
143	04/10/2023	19:43:30.699	OUT106	Asserted
142	04/10/2023	19:43:30.699	51P1	Asserted

141	04/10/2023	19:43:30.729	50P6	Deasserted
140	04/10/2023	19:43:30.729	OUT106	Deasserted
139	04/10/2023	19:43:30.729	51P1	Deasserted
138	04/11/2023	10:50:17.357	50P6	Asserted
137	04/11/2023	10:50:17.357	OUT106	Asserted
136	04/11/2023	10:50:17.357	51P1	Asserted
135	04/11/2023	10:50:17.382	50P6	Deasserted
134	04/11/2023	10:50:17.387	OUT106	Deasserted
133	04/11/2023	10:50:17.387	51P1	Deasserted
132	04/11/2023	19:43:02.921	50P6	Asserted
131	04/11/2023	19:43:02.921	OUT106	Asserted
130	04/11/2023	19:43:02.921	51P1	Asserted
129	04/11/2023	19:43:02.941	50P6	Deasserted
128	04/11/2023	19:43:02.941	OUT106	Deasserted
127	04/11/2023	19:43:02.941	51P1	Deasserted
126	04/12/2023	10:48:21.506	50P6	Asserted
125	04/12/2023	10:48:21.511	OUT106	Asserted
124	04/12/2023	10:48:21.511	51P1	Asserted
123	04/12/2023	10:48:21.526	50P6	Deasserted
122	04/12/2023	10:48:21.531	OUT106	Deasserted
121	04/12/2023	10:48:21.531	51P1	Deasserted
120	04/15/2023	10:42:10.392	50P6	Asserted
119	04/15/2023	10:42:10.397	OUT106	Asserted
118	04/15/2023	10:42:10.397	51P1	Asserted
117	04/15/2023	10:42:10.412	50P6	Deasserted
116	04/15/2023	10:42:10.417	OUT106	Deasserted
115	04/15/2023	10:42:10.417	51P1	Deasserted
114	04/15/2023	19:41:32.749	50P6	Asserted
113	04/15/2023	19:41:32.754	OUT106	Asserted
112	04/15/2023	19:41:32.754	51P1	Asserted
111	04/15/2023	19:41:32.768	50P6	Deasserted
110	04/15/2023	19:41:32.773	OUT106	Deasserted
109	04/15/2023	19:41:32.773	51P1	Deasserted
108	04/17/2023	10:55:15.772	50P6	Asserted
107	04/17/2023	10:55:15.772	OUT106	Asserted
106	04/17/2023	10:55:15.772	51P1	Asserted
105	04/17/2023	10:55:15.782	50P6	Deasserted
104	04/17/2023	10:55:15.782	OUT106	Deasserted
103	04/17/2023	10:55:15.782	51P1	Deasserted
102	04/17/2023	20:00:09.483	50P6	Asserted
101	04/17/2023	20:00:09.488	OUT106	Asserted
100	04/17/2023	20:00:09.488	51P1	Asserted
99	04/17/2023	20:00:09.523	50P6	Deasserted
98	04/17/2023	20:00:09.528	OUT106	Deasserted
97	04/17/2023	20:00:09.528	51P1	Deasserted
96	04/18/2023	19:43:59.276	50P6	Asserted
95	04/18/2023	19:43:59.276	OUT106	Asserted
94	04/18/2023	19:43:59.276	51P1	Asserted
93	04/18/2023	19:43:59.296	50P6	Deasserted
92	04/18/2023	19:43:59.296	OUT106	Deasserted
91	04/18/2023	19:43:59.296	51P1	Deasserted
90	04/20/2023	11:01:14.049	50P6	Asserted
89	04/20/2023	11:01:14.054	50P6	Deasserted
88	04/21/2023	19:47:24.525	50P6	Asserted

87	04/21/2023	19:47:24.525	OUT106	Asserted
86	04/21/2023	19:47:24.525	51P1	Asserted
85	04/21/2023	19:47:24.535	50P6	Deasserted
84	04/21/2023	19:47:24.535	OUT106	Deasserted
83	04/21/2023	19:47:24.535	51P1	Deasserted
82	04/22/2023	13:14:33.074	51G1	Asserted
81	04/22/2023	13:14:33.074	OUT106	Asserted
80	04/22/2023	13:14:33.109	50G6	Asserted
79	04/22/2023	13:14:34.264	50G6	Deasserted
78	04/22/2023	13:14:34.269	51G1	Deasserted
77	04/22/2023	13:14:34.269	OUT106	Deasserted
76	04/22/2023	13:14:39.478	51G1	Asserted
75	04/22/2023	13:14:39.478	OUT106	Asserted
74	04/22/2023	13:14:39.488	51G1	Deasserted
73	04/22/2023	13:14:39.488	OUT106	Deasserted
72	04/22/2023	13:14:39.538	51G1	Asserted
71	04/22/2023	13:14:39.538	OUT106	Asserted
70	04/22/2023	13:14:39.573	50G6	Asserted
69	04/22/2023	13:14:39.584	50G6	Deasserted
68	04/22/2023	13:14:39.589	51G1	Deasserted
67	04/22/2023	13:14:39.589	OUT106	Deasserted
66	04/22/2023	13:14:39.609	51G1	Asserted
65	04/22/2023	13:14:39.609	OUT106	Asserted
64	04/22/2023	13:14:39.644	50G6	Asserted
63	04/22/2023	13:14:40.557	50G6	Deasserted
62	04/22/2023	13:14:40.562	51G1	Deasserted
61	04/22/2023	13:14:40.562	OUT106	Deasserted
60	04/22/2023	19:35:55.446	50P6	Asserted
59	04/22/2023	19:35:55.451	OUT106	Asserted
58	04/22/2023	19:35:55.451	51P1	Asserted
57	04/22/2023	19:35:55.476	50P6	Deasserted
56	04/22/2023	19:35:55.481	OUT106	Deasserted
55	04/22/2023	19:35:55.481	51P1	Deasserted
54	04/24/2023	10:55:17.337	50P6	Asserted
53	04/24/2023	10:55:17.337	OUT106	Asserted
52	04/24/2023	10:55:17.337	51P1	Asserted
51	04/24/2023	10:55:17.362	50P6	Deasserted
50	04/24/2023	10:55:17.367	OUT106	Deasserted
49	04/24/2023	10:55:17.367	51P1	Deasserted
48	04/24/2023	19:49:53.118	50P6	Asserted
47	04/24/2023	19:49:53.123	OUT106	Asserted
46	04/24/2023	19:49:53.123	51P1	Asserted
45	04/24/2023	19:49:53.153	50P6	Deasserted
44	04/24/2023	19:49:53.153	OUT106	Deasserted
43	04/24/2023	19:49:53.153	51P1	Deasserted
42	04/26/2023	10:51:59.558	50P6	Asserted
41	04/26/2023	10:51:59.558	OUT106	Asserted
40	04/26/2023	10:51:59.558	51P1	Asserted
39	04/26/2023	10:51:59.578	50P6	Deasserted
38	04/26/2023	10:51:59.578	OUT106	Deasserted
37	04/26/2023	10:51:59.578	51P1	Deasserted
36	04/28/2023	10:45:21.728	50P6	Asserted
35	04/28/2023	10:45:21.728	OUT106	Asserted
34	04/28/2023	10:45:21.728	51P1	Asserted

33	04/28/2023	10:45:21.733	50P6	Deasserted
32	04/28/2023	10:45:21.738	OUT106	Deasserted
31	04/28/2023	10:45:21.738	51P1	Deasserted
30	04/28/2023	11:50:50.156	51G1	Asserted
29	04/28/2023	11:50:50.156	OUT106	Asserted
28	04/28/2023	11:50:50.175	51G1	Deasserted
27	04/28/2023	11:50:50.175	OUT106	Deasserted
26	04/28/2023	11:58:52.788	50P6	Asserted
25	04/28/2023	11:58:52.788	OUT106	Asserted
24	04/28/2023	11:58:52.788	51P1	Asserted
23	04/28/2023	11:58:52.808	50P6	Deasserted
22	04/28/2023	11:58:52.808	OUT106	Deasserted
21	04/28/2023	11:58:52.808	51P1	Deasserted
20	04/28/2023	15:09:39.459	51G1	Asserted
19	04/28/2023	15:09:39.459	OUT106	Asserted
18	04/28/2023	15:09:39.469	50P6	Asserted
17	04/28/2023	15:09:39.474	51P1	Asserted
16	04/28/2023	15:09:39.489	50P6	Deasserted
15	04/28/2023	15:09:39.494	51P1	Deasserted
14	04/28/2023	15:09:39.499	51G1	Deasserted
13	04/28/2023	15:09:39.499	OUT106	Deasserted
12	04/29/2023	05:42:29.101	51G1	Asserted
11	04/29/2023	05:42:29.101	OUT106	Asserted
10	04/29/2023	05:42:29.136	50G6	Asserted
9	04/29/2023	05:42:29.351	50G6	Deasserted
8	04/29/2023	05:42:29.351	51G1	Deasserted
7	04/29/2023	05:42:29.351	OUT106	Deasserted
6	04/29/2023	07:15:48.502	51G1	Asserted
5	04/29/2023	07:15:48.502	OUT106	Asserted
4	04/29/2023	07:15:48.537	50G6	Asserted
3	04/29/2023	07:15:48.677	50G6	Deasserted
2	04/29/2023	07:15:48.682	51G1	Deasserted
1	04/29/2023	07:15:48.682	OUT106	Deasserted

=>MET

52E1 CREO
LOS NEGROS

Date: 04/29/2023 Time: 18:48:28.138
Time Source: external

	A	B	C	N	G
I MAG (A)	17.934	19.931	20.333	3.638	3.638
I ANG (deg)	-2.59	-116.11	124.74	-161.82	-161.82

	I1	3I2	3I0
I MAG (A)	19.369	3.248	3.156
I ANG (deg)	2.19	-125.24	-140.72

	VAY	VBY	VCY	VAZ	VBZ	VCZ
V MAG (kV)	12.637	12.926	12.834	0.002	0.001	0.000
V ANG (deg)	0.00	-119.92	118.92	-62.15	138.15	-62.15

	VABY	VBCY	VCAZ	VABZ	VBCZ	VCAZ
V MAG (kV)	22.130	22.438	21.938	0.004	0.002	0.002
V ANG (deg)	30.42	-90.61	149.20	-54.80	135.12	117.85

	V1Y	V2Y	3V0Y	V1Z	V2Z	3V0Z
V MAG (kV)	12.798	0.168	0.033	0.001	0.001	0.001
V ANG (deg)	-0.33	157.53	118.61	-80.20	-30.27	-81.40

	A	B	C	3P
MW	0.226	0.257	0.260	0.743
MVAR	0.010	-0.017	-0.026	-0.033
MVA	0.227	0.258	0.261	0.745
PF	0.999	0.998	0.995	0.999
	LAG	LEAD	LEAD	LEAD

FREQ (Hz) 49.94

Vbase (kV) 0.000

=>STA

Serial Number: 5221927042

52E1 CREO	Date: 04/29/2023	Time: 18:48:32.320
LOS NEGROS	Time Source: external	

FID=SEL-651RA-R104-V2-Z004001-D20220510 CID=1ED0

SELF TESTS

Channel Offsets (mV)				W=Warn	F=Fail					
	I1	I2	I3	IN	V1Y	V2Y	V3Y	V1Z	V2Z	V3Z
MOF										
OS	-0	-0	-0	4	-1	-0	-0	-1	-1	-0
-0										
OSH	0	-0	-0	4						

Power Supply Voltages (V)				W=Warn	F=Fail
	+5V_PS	+5V_REG	+15V_PS	-15V_PS	+5VA_PS
	5.01	5.04	15.03	-15.00	4.99
					-5VA_PS
					-4.95

Temperature	RTC	HMI
37.1 degrees Celsius	OK	OK

Integrated Circuit and Board Status

RAM	ROM	A/D	FLASH	FPGA	EEPROM	INT_BRD	USB_BRD	COM_BRD
OK	OK	OK	OK	OK	OK	OK	OK	OK

Mains, Battery Monitor and Capacitor Monitor

INPBV	12VAUX	CMODE	VBAT	IBAT	TCCAPV
12.00	12.01	BAT_FLR	1.04	-0.01	35.9

Relay Enabled

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